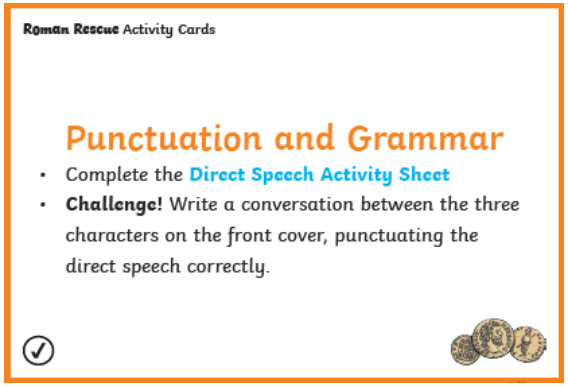
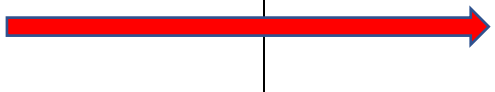
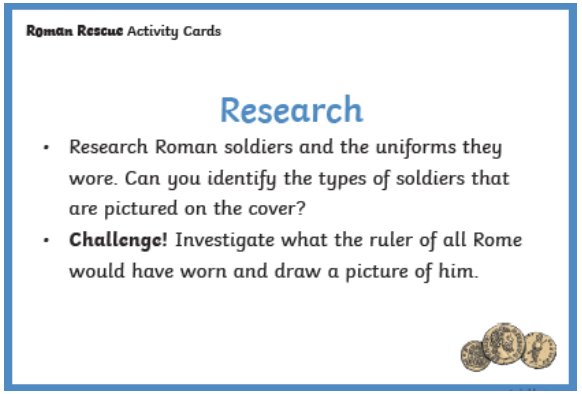
Yr 4 – Summer 1, Wk 5 Home Learning Tasks

Book – History Hackers: Roman Rescue

	Activity	Success criteria I can ……	The subjects below can be completed in any order.	
Literacy 1	Predicting a Storyline	Predict what might happen in the story	**Task:** • Using the 'HHRR Front Cover' activity, make a list of details about what you see. Then write a few sentences on what you think the story might be about. • Read chapters 1 – 3 of History Hackers: Roman Rescue.	**Extend:** Complete the Challenge Questions related to chapter 1 – 3.
Literacy 2 / SPAG	Revision – Direct Speech	Use direct speech accurately Check my work for errors and make corrections	 Roman Rescue Activity Cards Punctuation and Grammar • Complete the Direct Speech Activity Sheet • **Challenge!** Write a conversation between the three characters on the front cover, punctuating the direct speech correctly. • Mrs Hanson's Literacy group – complete section A. Mr Gorsuch's Literacy group – complete sections A and B. • **Extend:** Everyone complete the challenge!	
Literacy 3	Use Descriptive Adjectives	Identify and use descriptive adjectives (2A)	**Task:** • Describe the characters from the front cover, using the 'HHRR Character Description' sheet. Use interesting descriptive adjectives.	**Extend:** Describe one of the children pictured on the front cover. Add your thoughts on how the children might act and what their characters might be like.
Literacy 4 & 5	Predicting a Storyline	Predict a storyline, based upon information I already have	**Task: Assessment Piece** • Think about what you have read so far (chapters 1 – 3). You have met some of the main characters in our new story. **Q** – What do you think will happen next? **1.** In your own words, write a paragraph saying what you think is most likely to happen in the story next. **2.** Read your work through carefully and make any corrections.	**How to submit your 'Assessment Task'** The piece of work can be sent as a word document or a photograph of the piece of work. Please ensure your name is at the top, class, date, and the title 'Yr 4 - Assessment Task 2'. Then send the piece of work to the following email address by Sunday 24th May:

			3. Rewrite the paragraph using cursive handwriting – **this will be your best copy assessment piece**.	KS2.inbox@parkfield.bournemouth.sch.uk
Comp	Read Text and Retrieve Information	Retrieve information form a text	**Task:** • Re-read 'History Hackers: Roman Rescue' chapters 1 – 3. • Answer the comprehension questions – 3 levels have been attached, choose 1.	
Numeracy 1	Revision - Perimeter	Calculate the perimeter of a rectilinear shape	**Task:** • **Read Through: '**PowerPoint - Perimeter of Rectilinear Shapes'. • Look at the 'Perimeter 1' activity. 3 levels have been attached, choose 1 to complete.	**Extend:** You're the teacher! Check your work using the answer sheet. Make any corrections.
Numeracy 2	Revision - Perimeter	Calculate the perimeter of a rectilinear shape Check my work for errors and make corrections	**Task:** • Look at 'Perimeter Challenge Cards' activity. There are 20 perimeter challenges! • Mr Gorsuch's Numeracy group – calculate the perimeter for shapes A – I. • Mrs Hanson's Numeracy group – calculate the perimeter for shapes J – P, or N – T.	**Extend:** Draw 4 shapes on squared paper, then calculate and record the perimeter of each shape.
Numeracy 3	Revision - Perimeter	Calculate the perimeter of a rectilinear shape Check my work for errors and make corrections	**Task: Mastery** • Look at 'Perimeter Mastery' activity. Complete 'Perimeter Mastery'. Mr Gorsuch's Numeracy group Mrs Hanson's Numeracy group	**Extend:** Have a go at the next level – challenge yourself!
Numeracy 4	Revision – Calculating Area	Calculate the area of a compound shape Check my work for errors and make corrections	**Task:** • **Read Through: '**PowerPoint - Area of Compound Shapes' and 'Area Information' sheet. • Look at the 'Area 1' activity. • Mr Gorsuch's Numeracy group – Activity A. • Mrs Hanson's Numeracy group – Activity B or C (challenge yourself!).	

Numeracy 5	Revision – Comparing Area	Calculate and comparing the area of a compound shape Check work for errors and make corrections	**Task:** • **Read Through:** 'PowerPoint – Comparing Area'. Complete 'Comparing Area' activity. Mr Gorsuch's Numeracy group    Mrs Hanson's Numeracy group   	**Extend:** Have a go at the next level – challenge yourself
Science / Humanities	Develop Research Skills	Use the internet to retrieve information	 **Roman Rescue** Activity Cards Research • Research Roman soldiers and the uniforms they wore. Can you identify the types of soldiers that are pictured on the cover? • **Challenge!** Investigate what the ruler of all Rome would have worn and draw a picture of him. **Q** - How will you record your research work? Create an eye-catching poster!	
PSHE	Success and Goals	Reflect on successes and set new goals	**Task:** • Write down 3 things that went well last week (you can draw pictures too). • Write down 3 things that you wish to improve from last week. For each, write an idea to try to help you improve them.	
Every week!			**Tasks:** • 'Bitesize daily' https://www.bbc.co.uk/bitesize/dailylessons • X3, X4, X6, X7, X8 tables – fifteen-minute practices 3 times per week (Use TTrcoksstars to help you). • Numbot - Ten-minute practices 3 times per week (access through TTrockstarts)	

			• Read aloud to a member of your family – fifteen minutes 3 times per week • Select 5 words from the Yr 3 & Yr 4 spellings list to practice 3 times per week • BATTLE on TT Rockstars: Beech vs Holly – who will win?	

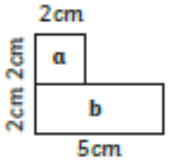
A

Area of Compound Shapes

I can calculate the area of compound shapes.

Calculate the area of each rectangle, then calculate the area of the whole compound shape.

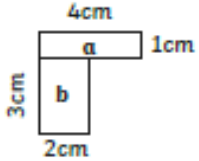
1.



Area a: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

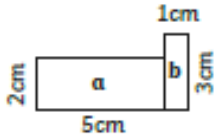
2.



Area a: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

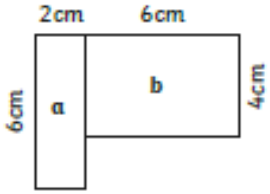
3.



Area a: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

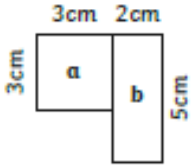
4.



Area a: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

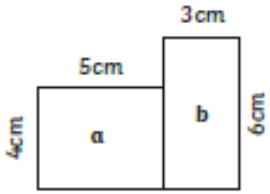
5.



Area a: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

6.



Area a: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

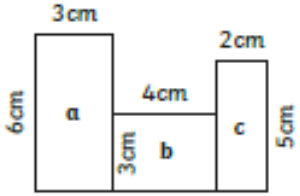
Note: Compound shapes are not to scale.

Area of Compound Shapes

I can calculate the area of compound shapes.

Calculate the area of each rectangle, then calculate the area of the whole compound shape.

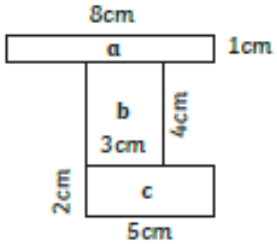
7.



Area a: _____ cm^2 Area c: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

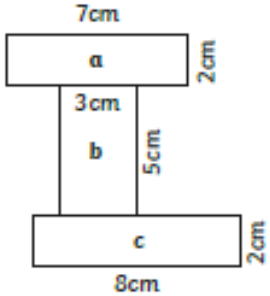
8.



Area a: _____ cm^2 Area c: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

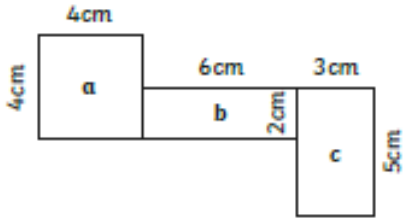
9.



Area a: _____ cm^2 Area c: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

10.



Area a: _____ cm^2 Area c: _____ cm^2

Area b: _____ cm^2 Total: _____ cm^2

Note: Compound shapes are not to scale.

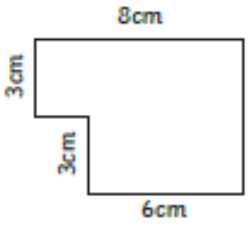
B

Area of Compound Shapes

I can calculate the area of compound shapes.

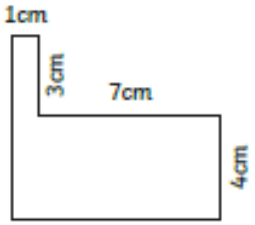
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.

1.



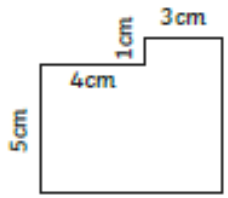
Total: _____

2.



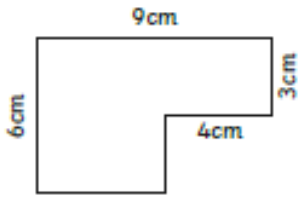
Total: _____

3.



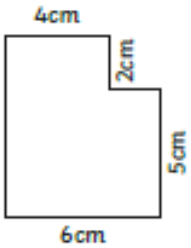
Total: _____

4.



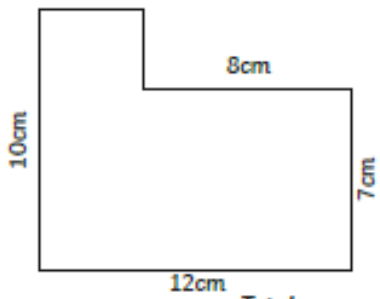
Total: _____

5.



Total: _____

6.



Total: _____

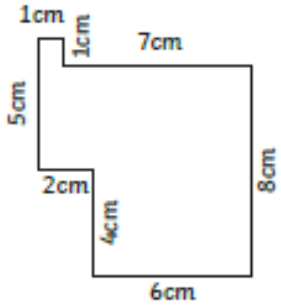
Note: Compound shapes are not to scale.

Area of Compound Shapes

I can calculate the area of compound shapes.

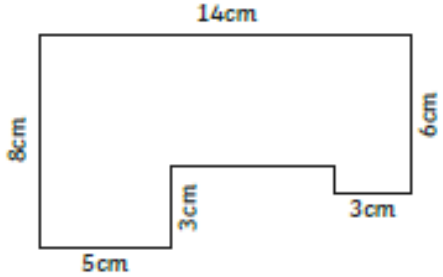
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.

7.



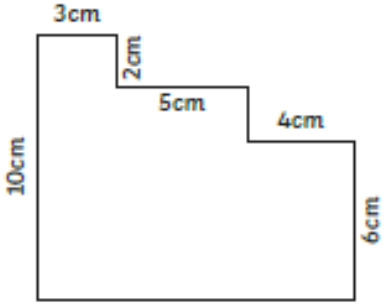
Total: _____

8.



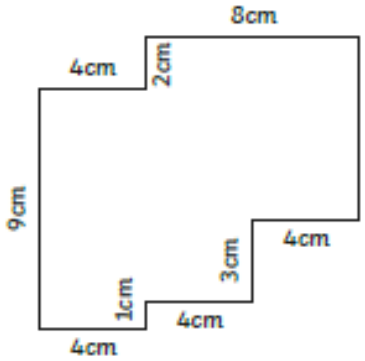
Total: _____

9.



Total: _____

10.



Total: _____

Note: Compound shapes are not to scale.

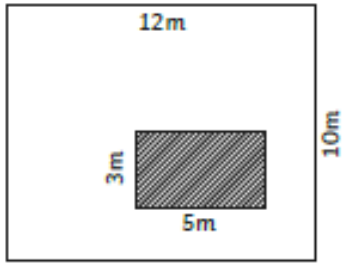
C

Area of Compound Shapes

I can calculate the area of compound shapes.

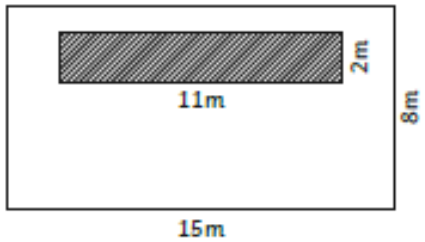
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.

1.



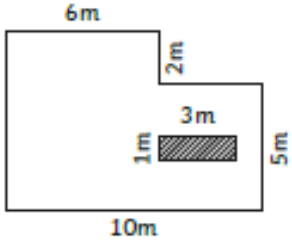
Total: _____

2.



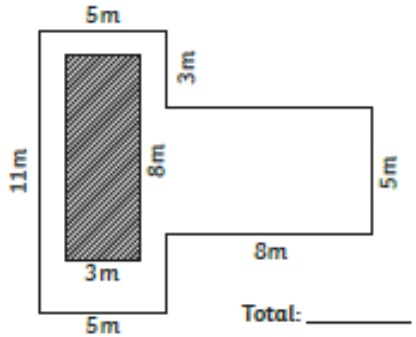
Total: _____

3.



Total: _____

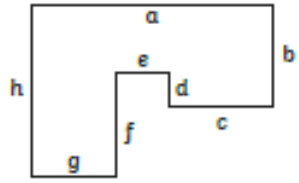
4.



Total: _____

Write possible measurements for these shapes based upon the area given.

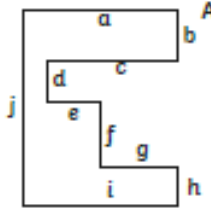
5. Area: $98m^2$



a: _____ b: _____ c: _____ d: _____

e: _____ f: _____ g: _____ h: _____

6. Area: $120m^2$

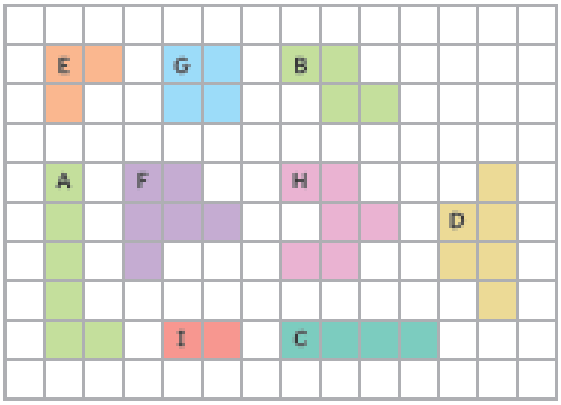


a: _____ b: _____ c: _____ d: _____ e: _____

f: _____ g: _____ h: _____ i: _____ j: _____

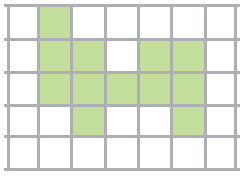
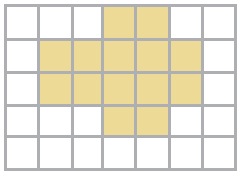
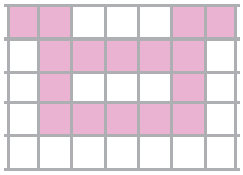
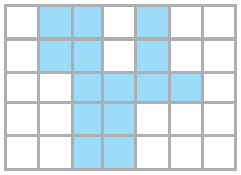
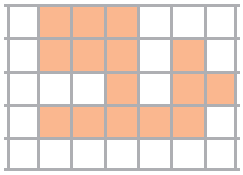
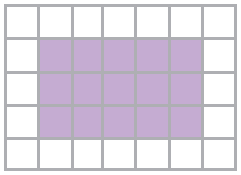
Note: Compound shapes are not to scale.

1) Find the area of each rectilinear shape then copy and complete the table.

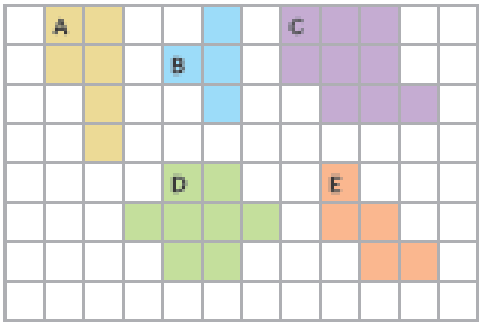


Shapes with an Area Greater Than 5 Squares	Shapes with an Area Less Than 5 Squares

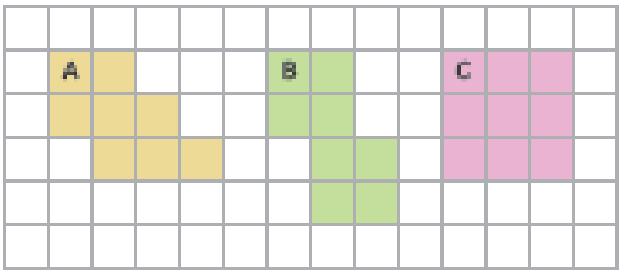
2) Calculate the area of each shape. Decide whether to use >, < or = to compare the area of each shape.

Shape 1		Shape 2
	a) <, > or =	
	b) <, > or =	
	c) <, > or =	

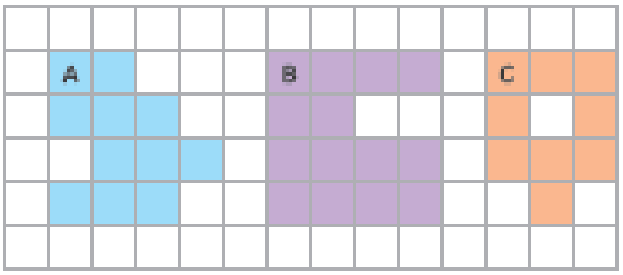
3) Order these shapes from the shape with the largest area to the shape with the smallest area.



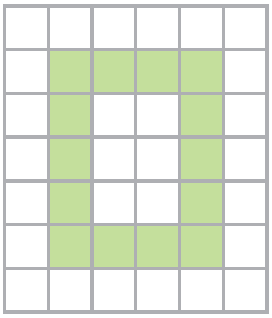
1) Which is the odd one out? Explain why.

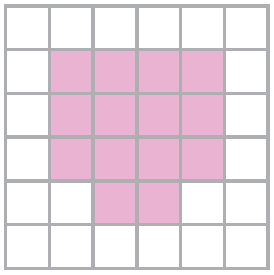


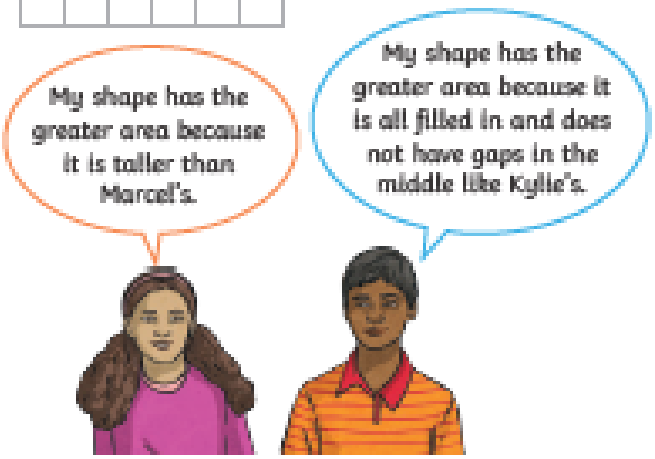
2) Gavin has been asked to order these rectilinear shapes from the one with the greatest area to the one with the smallest area. His teacher has marked his answer as wrong and he is confused. Can you spot and explain the mistake he has made?



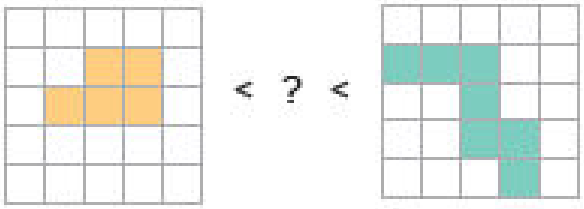
3) Kylie and Marcel are having a disagreement over whose shape has the greater area. Who do you think is correct? Explain your reasoning.







1) a) Luca has been comparing the areas of rectilinear shapes but 1 shape is missing. Can you work out what its area could be and draw what the missing shape could look like?

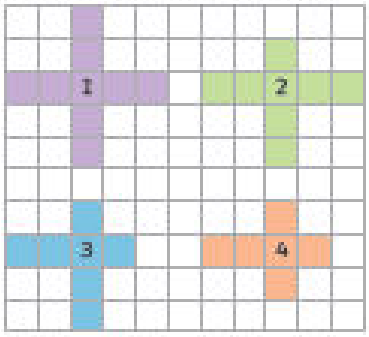


b) Draw another 6 different possible answers.

2) Read these descriptions about the area of each shape. Can you work out which shape belongs to each child?

3) Jo has created this sequence of shapes. Can you explain her pattern and add the next two shapes?

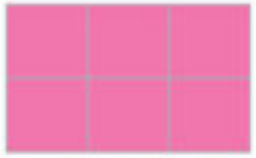
Describe what is happening to the area of each shape.



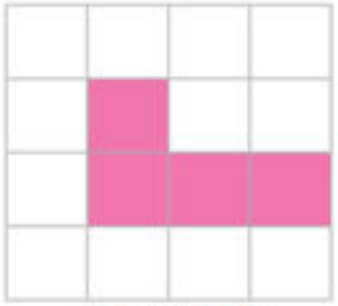
Measuring Area

We can count **squares** to find the **area** of a **rectilinear** shape.

Area = 1 square



Area = 6 squares



Area = 4 squares

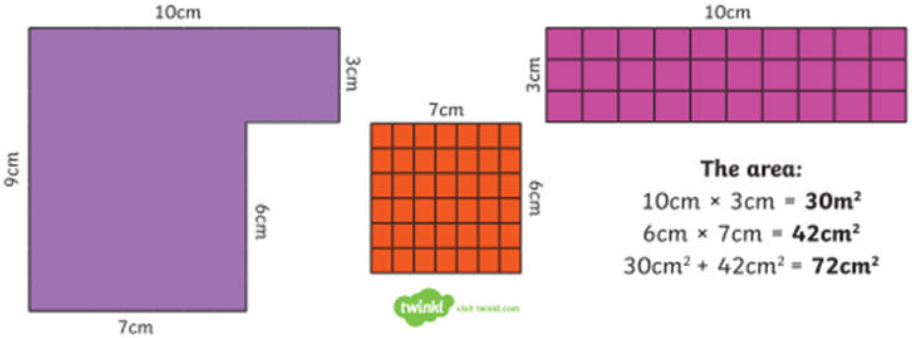
Rectilinear Figures

A **rectilinear** figure is a 2D shape whose sides all meet at **right angles** (90°).

The **area** is the total amount of surface a 2D shape covers.

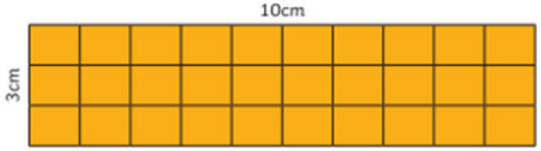
Area is measured in square units.
squared centimetres (**cm²**)
squared metres (**m²**)
squared kilometres (**km²**)

You can calculate the area of shapes made up of rectangles by breaking them down into individual rectangles.

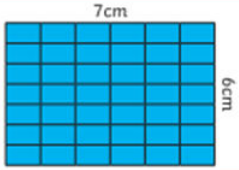


The area:
10cm × 3cm = **30m²**
6cm × 7cm = **42cm²**
30cm² + 42cm² = **72cm²**

The **area**:
10cm × 3cm = 30cm²



The **area**:
7cm × 6cm = 42cm²



Answers

	I can...
1. How old is Tilda Hacker? Tick one. ◯ Seven years old ◯ Twelve years old ✓ **Eleven years old**	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
2. Tick the adjective that best describes how Charlie is feeling during Chapter 1. ◯ Excited ✓ **Nervous** ◯ Upset	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
3. Tilda leaned her slender frame against an uneven wall. Use a dictionary to find the meaning of the word 'slender'. **'Slender' means slim in a graceful way.**	• use dictionaries to check the meaning of words that I have read.
4. Complete the sentence using one of the words below. Tilda's gaze bounced from one corner to the next, she was shocked to see that every centimetre of space was filled with exactly the same thing... ◯ Boxes ✓ **Nothing** ◯ Rubbish	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
5. Why do you think Tilda snatched the gun away from Charlie? **Possible answers: it could have been dangerous; it wasn't his gun to touch; she wanted to see it.**	• draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify inferences with evidence.

	I can...
6. Link the items of clothing with their descriptions. Use a ruler. chainmail • • chest plates leather • • jerkins bronze • • shirts	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
7. Yet one item stood out like a rose in a bed of dandelions: a journal... Why is the journal like a rose in a bed of dandelions? **The journal looks beautiful and new compared to the things around it; roses are famously more beautiful and precious than dandelions.**	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context. • identify how language, structure, and presentation contribute to meaning.
8. What do you think might happen next? Find and copy a clue from the text. **Pupils' own responses, justified with evidence from the text.**	• predict what might happen from details stated and implied.

Answers

	I can...
1. Who is the eldest child? ✓ **Tilda** ◯ Charlie	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
2. Find and copy some evidence from Chapter 1 that shows that Charlie is feeling nervous. **Any appropriate evidence.**	• draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify inferences with evidence.
3. The eleven-year-old stopped climbing the bare staircase with a sigh, glancing down at the nervous face behind her. How is Tilda feeling during this sentence? Which words tell you this? **Tilda is feeling frustrated and impatient – she stops 'with a sigh', which tells us that this sort of thing has happened before.**	• draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify inferences with evidence.
4. Why was it strange that the room was empty? **The rest of the house had been full of clutter.**	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
5. Read the paragraph in Chapter 3 that starts with 'The air was thick...'. What is the main purpose of this paragraph? **The purpose of this paragraph is to highlight the difference in smell between the secret room and the rest of the house.**	• identify main ideas drawn from more than one paragraph and summarise these.

	I can...
6. Why does Tilda think the artefacts should be in a museum? Use evidence from the text to support your answer. **Possible answers: the artefacts all appear to be real; the artefacts were all well-kept and displayed to a high standard;** **"This kind of stuff should be in a museum. This is real history"; "...hunting for treasure by going back in time"; "He mentions the musket you showed me... says he stole it from a soldier during the English civil war".**	• identify main ideas drawn from more than one paragraph and summarise these. • draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence.
7. Underline the fronted adverbial in this sentence. Seated at the small desk, Tilda carefully began searching the stacks of papers and ledgers for some kind of clue.	• learn the grammar for years 3 and 4 in English Appendix 2.
8. Write a question about something you want to find out after reading Chapters 1-3. **Answers may vary.**	• ask questions to improve my understanding.
9. What main event do you predict will happen during Chapter 4? Write down the clues in the text which make you think this. **Pupils' own responses, justified with evidence from the text.**	• predict what might happen from details stated and implied.

Answers

	I can...
1. Who is the eldest child? Explain how you know. **Tilda is the eldest; Charlie is referred to as her 'younger' brother.**	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context.
2. a) Underline the fronted adverbial in this sentence. Tiring of Charlie's whimpering, she grabbed his wrist and restarted her ascent.	• learn the grammar for years 3 and 4 in English Appendix 2.
2. b) What does 'ascent' mean in this sentence? **'Ascent' means a climb or walk to the top of something.**	• check that the text makes sense to me, discuss my understanding and explain the meaning of words in context. • use dictionaries to check the meaning of words that I have read.
3. "Come on – I'll go in first and check it out. I mean, how scary can a group of dead men in skirts be anyway?" Who could Tilda be referring to by 'dead men in skirts'? Explain how you know. **Roman soldiers – Charlie mentioned a legion of soldiers walking through a cellar.**	• draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify inferences with evidence.
4. Charlie's smile vanished as he shuffled awkwardly. "Yeah! Of course! I just need a minute to let my... erm... shoe recover. The stressed foam could give way at any time and snap my ankle!" Why do you think Charlie's smile vanished? Use evidence from the text. **Any reference to Charlie feeling nervous/worried/anxious/scared. Evidence from the text must be provided.**	• draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justify inferences with evidence.
5. In Chapter 1, what simile is used to describe the door opening? **The hinges 'shrieked liked startled seagulls'.**	• discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.

	I can...
6. Read the paragraph in Chapter 3 that starts with 'Her eyes could barely take it all in...'. What is the main purpose of this paragraph? What is the overall impact on the reader? **The purpose of this paragraph is to describe the secret room. The reader feels like the room is bursting with objects, so many that Tilda can't look at everything fast enough.**	• summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas. • discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.
7. Circle a metaphor and underline a simile in the following sentence. Excitement sent giddy butterflies fluttering in Tilda's stomach. As she scrabbled to join her brother, the sights that greeted her struck like a freeze-ray.	• discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.
8. The weapon felt heavy in her hand; the wooden stock had the shape and smoothness that only real fingers could forge. What does this description suggest? **The description suggests that this was a real weapon that had once been used regularly by someone, rather than a cheap or unimportant replica.**	• identify how language, structure and presentation contribute to meaning. • discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.
9. Why do you think Tilda felt like they were trespassing? **The room had been left full of someone's belongings and Tilda knew they should have told an adult rather than rummaging through what they found.**	• draw inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence. • participate in discussions about books that are read to me and those I can read for myself, build on my own and others' ideas and challenge views courteously.
10. What main event do you predict will happen during Chapter 4? Write down the clues in the text which make you think this. **Pupils' own responses, justified with evidence from the text.**	• predict what might happen from details stated and implied.

Questions

This activity is to be completed once Chapters 1-3 of 'History Hackers: Roman Rescue' have been read.

1. How old is Tilda Hacker? Tick one.

   ◯ Seven years old ◯ Twelve years old ◯ Eleven years old

2. Tick the adjective that best describes how Charlie is feeling during Chapter 1.

   ◯ Excited ◯ Nervous ◯ Upset

3. Tilda leaned her slender frame against an uneven wall.

   Use a dictionary to find the meaning of the word 'slender'.

   _____

4. Complete the sentence using one of the words below.

   Tilda's gaze bounced from one corner to the next, she was shocked to see that every centimetre of space was filled with exactly the same thing...

   ◯ Boxes ◯ Nothing ◯ Rubbish

5. Why do you think Tilda snatched the gun away from Charlie?

   _____

   _____

6. Link the items of clothing with their descriptions. Use a ruler.

chainmail	chest plates
leather	jerkins
bronze	shirts

7. Yet one item stood out like a rose in a bed of dandelions: a journal...

   Why is the journal like a rose in a bed of dandelions?

   _____

   _____

8. What do you think might happen next? Find and copy a clue from the text.

   _____

   _____

Questions

This activity is to be completed once Chapters 1-3 of 'History Hackers: Roman Rescue' have been read.

1. Who is the eldest child?

   ◯ Tilda ◯ Charlie

2. Find and copy some evidence from Chapter 1 that shows that Charlie is feeling **nervous**.

   _____

3. | The eleven-year-old stopped climbing the bare staircase with a sigh, glancing down at the nervous face behind her. |
   |---|

   How is Tilda feeling during this sentence? Which words tell you this?

   _____

   _____

4. Why was it strange that the room was empty?

   _____

5. Read the paragraph in Chapter 3 that starts with 'The air was thick....'.

   What is the main purpose of this paragraph?

   _____

   _____

6. Why does Tilda think the artefacts should be in a museum?

   Use evidence from the text to support your answer.

   _____

   _____

   _____

7. Underline the fronted adverbial in this sentence.

Seated at the small desk, Tilda carefully began searching the stacks of papers and ledgers for some kind of clue.

8. Write a question about something you want to find out after reading Chapters 1-3.

   _____

   _____

9. What main event do you predict will happen during Chapter 4?

   Write down the clues in the text which make you think this.

   _____

   _____

   _____

Questions

This activity is to be completed once Chapters 1-3 of 'History Hackers: Roman Rescue' have been read.

1. Who is the eldest child? Explain how you know.

2. a) Underline the fronted adverbial in this sentence.

> Tiring of Charlie's whimpering, she grabbed his wrist and restarted her ascent.

b) What does 'ascent' mean in this sentence?

3.

> "Come on – I'll go in first and check it out. I mean, how scary can a group of dead men in skirts be anyway?"

Who could Tilda be referring to by 'dead men in skirts'? Explain how you know.

4.

> Charlie's smile vanished as he shuffled awkwardly. "Yeah! Of course! I just need a minute to let my... erm... shoe recover. The stressed foam could give way at any time and snap my ankle!"

Why do you think Charlie's smile vanished? Use evidence from the text.

5. In Chapter 1, what simile is used to describe the door opening?

6. Read the paragraph in Chapter 3 that starts with 'Her eyes could barely take it all in...'. What is the main purpose of this paragraph? What is the overall impact on the reader?

7. Circle a metaphor and underline a simile in the following sentence.

> Excitement sent giddy butterflies fluttering in Tilda's stomach. As she scrabbled to join her brother, the sights that greeted her struck like a freeze-ray.

8.

> The weapon felt heavy in her hand; the wooden stock had the shape and smoothness that only real fingers could forge.

What does this description suggest?

9. Why do you think Tilda felt like they were trespassing?

10. What main event do you predict will happen during Chapter 4? Write down the clues in the text which make you think this.

Character Description

Add descriptive words (adjectives) and phrases around the images. What do you think the characters will be like?

Character Description

Challenge!

Describe one of these children from 'Roman Rescue' and add your thoughts on how the children might act and what their characters might be like.

Direct Speech

Part A

Direct speech is where the exact words someone has spoken are reproduced in a sentence using inverted commas.

"Charlie ducked behind the wall, hardly daring to breathe. Had he really just seen Roman soldiers?" the storyteller said.

1. Read the extract below and identify the punctuation that is missing, then copy the passage and punctuate the direct speech correctly.

   Tilda nursed her hand and glared at the stubborn framework. This felt like stalemate. Told you it was broken Charlie said triumphantly. The only way you'll ever get through is by kicking the door down. Tilda whirled round and snatched a handful of her brother's T-shirt. Charlie Hacker, you're a genius! Eh? Gimme one of your trainers. What? No! They won't fit you. I'm not going to wear it, silly. I'm going to use it to get through the door.

2. Write your own sentence using direct speech to show what you think will happen next.

Direct Speech

Part B

Direct speech is where the exact words someone has spoken are reproduced in a sentence using inverted commas.

"Charlie ducked behind the wall, hardly daring to breathe. Had he really just seen Roman soldiers?" the story teller said.

List the rules for punctuating direct speech below and give examples for each one.

Challenge!

Use your imagination to write a conversation between the three characters on the front cover, punctuating the direct speech correctly.

Task: Using the front cover, make a list of details about what you see. Then write a few sentences on what you think the story might be about.

History Hackers: Roman Rescue

Reading Questions & Story Discussion Prompts

Chapter 1: A Very Difficult Door

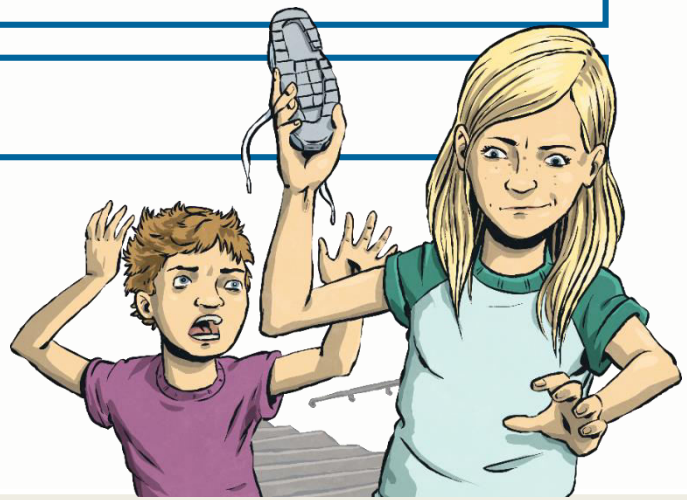
To think about while reading:

1. What would you do if you discovered a secret room in your house?
2. What impression do you get of Tilda and Charlie?
3. Are there any words in this chapter that you don't understand?

Chapter 1: A Very Difficult Door

After reading the chapter:

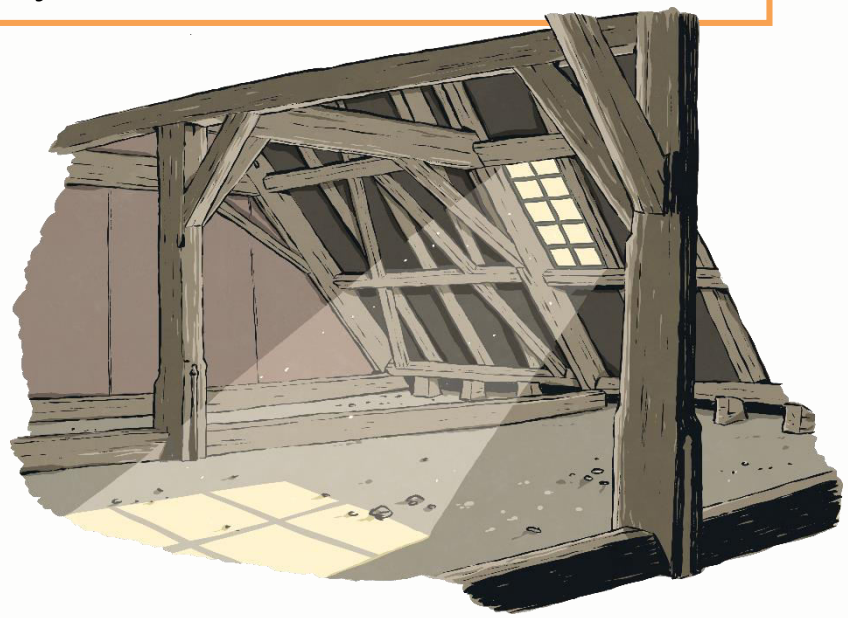
1. What are the names of the two children?
2. Why does Tilda want to investigate the secret room?
3. Why doesn’t Charlie want to investigate the secret room?
4. What words would you use to describe the characters?
5. Which character are you most like?



Chapter 2: Disappointed by Dust

To think about while reading:

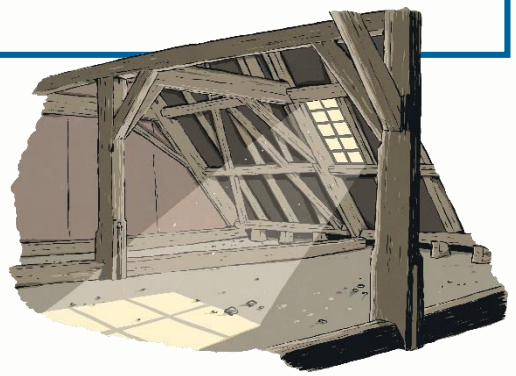
1. Why did Tilda feel ‘robbed’?
2. Why do you think the room appeared to have never been used?
3. Why did Tilda jerk her head away from the wall?



Chapter 2: Disappointed by Dust

After reading the chapter:

1. What had Charlie hoped to find?
2. Why did Tilda gasp?
3. Who went into the secret room first?
4. What do you think the mystery room contains?
5. What do you predict the children will do next?



Chapter 3: Trapdoor Treasure Trove

To think about while reading:

1. How does the day become way more interesting?
2. How does the author compare the atmosphere in each room?
3. What treasures do the children see?

Chapter 3: Trapdoor Treasure Trove

After reading the chapter:

1. What was piled high on the desk?
2. What caught Tilda's attention?
3. What phrase is used to describe how excited Tilda felt?
4. Do you think the children were trespassing?
5. "Mum and Dad bought the house and all its contents – and this looks a lot like contents to me."
   Do you agree with Charlie?

Chapter 1
A Very Difficult Door

Small fingers gripped Tilda Hacker's elbow from behind, squeezing until painful shivers shot up to her shoulder. The eleven-year-old stopped climbing the bare staircase with a sigh, glancing down at the nervous face behind her.

Beneath the scruffy blonde haircut that might look more at home on a terrier, Charlie Hacker's blue eyes threw worried glances toward the narrow door looming at the top of the stairs. "What if the attic is haunted?"

"Don't be such a numpty!" Tilda peeled her younger

brother's slim fingers away from her arm and sent strands of sandy hair flying back across her shoulders with a flick. "Why would Dad send us to the attic if it was haunted?"

"Erm, because he doesn't believe in ghosts?" the ten-year-old reminded her. "And he's too busy to remember that I do!"

Tilda wrinkled her freckled nose as invisible specks of freshly-disturbed dust threatened to make her sneeze. It had been years since anyone had climbed the narrow staircase. She still felt pleased that her mother and father had trusted her to explore the attic and hunt for anything valuable. Perhaps they saw her potential to become a proper antiques dealer, just like them.

The Hackers had lived in the creaking rooms above their antique shop for almost three months now. According to letters that the postman still slipped through their door, the previous resident had been a man called Professor Howe. For reasons nobody knew, he'd left in a hurry over a year earlier, leaving behind all his possessions and stacks of unpaid bills.

Since buying the house at an auction, the family had spent every spare hour decluttering their new home,

room by room. Now, only the attic needed to be cleared.

Tilda leaned her slender frame against an uneven wall. "Don't you think we'd know by now if this house was haunted?"

"Ghosts don't exactly send you a friend request, Tils!" Charlie fired his older sister a look that seemed to challenge her IQ. "Besides, everyone knows York is England's most haunted city." The thought seemed to send a shiver dancing through Charlie's body. "Dad says there's a pub not far from us that once had an entire legion of Roman soldiers walk right through the cellar. They're probably up there right now, plotting how best to scare us both."

"Well, someone should tell them they needn't bother," Tilda said. "You seem to be doing a pretty good job of that all by yourself."

Tiring of Charlie's whimpering, she grabbed his wrist and restarted her ascent. "Come on – I'll go in first and check it out. I mean, how scary can a group of dead men in skirts be anyway?"

The unpolished brass door handle bit like ice against Tilda's palm. It refused to move.

"Good," cheered Charlie. "I'll tell Dad the lock is broken. He'll never fork out for the repair."

Refusing to give up so easily, Tilda grabbed the handle with both hands and heaved against it a second time. Determination drove her to keep trying, until beads of sweat were tickling her nose and her hand felt like it had just caught a champion tennis player's hardest serve.

Tilda nursed her hand and glared at the stubborn metalwork. This felt like stalemate.

"Told you it was broken," Charlie said triumphantly. "The only way you'll ever get through is by kicking the door down."

Tilda whirled around and snatched a handful of her brother's T-shirt. "Charlie Hacker, you're a genius!"

"Eh?"

"Gimme one of your trainers."

"What? No! They won't fit you."

"I'm not going to wear it, silly. I'm going to use it to get through the door."

Too impatient to wait, Tilda crouched and grasped hold of her brother's right shoe.

"Hey! Gerroff!"

"You can have it back in a minute. I just need something tough enough to tackle this handle."

"It's made of rubber and foam," bleated Charlie. "You're going to murder my trainer."

"These things are designed to run up mountains. I'm sure it can take a couple of thumps and wallops."

"You'll be getting the thumps and wallops if you ruin that thing. Do you know how much these cost?"

Showing how little she cared, Tilda slammed the shoe against the door handle with all the strength she could muster. The rubber sole hit its mark with a determined thud, then bounced away faster than a ricocheting bullet, throwing Tilda against the solid stone wall.

"That thing's not going to move, Tils," Charlie insisted.

"You're wasting your time."

"I'm not letting a door handle get the better of me."

Crouching like a resolute brawler, Tilda moved back towards the door. When the shoe struck the handle a second time, she cleverly used the rubber sole's recoil as fuel for her third and fourth strikes. Each blow grew more and more forceful, until...

"It moved!" she gasped. "It's working."

"Try telling my poor trainer that."

Further blows weakened the handle and excitement bubbled in her stomach, until eventually the handle gave a satisfying click.

As the door sprang ajar, a lip of unexpected yellow light poked through a gap no wider than a mouse's head. Slim fingers of dust coiled into the stairwell, closely followed by the scent of dried timber.

Tilda handed back her brother's shoe, sniffing the air like a curious puppy. "Well, it certainly doesn't smell haunted."

More than anything, the room smelled as if nobody had paid it much attention since the house had been constructed.

Apparently happy that his shoe had survived unscathed, Charlie slipped it back onto his foot before the room's scent caught his attention too.

"It smells like Grandad's woodworking shed." Charlie's nose flared above a slight smile. "I love the smell of wood."

Tilda raised an eyebrow. "So, you're coming in then?"

Charlie's smile vanished as he shuffled awkwardly. "Yeah! Of course! I just need a minute to let my... erm... shoe recover. The stressed foam could give way at any time and snap my ankle!"

Tilda gave him a begrudging nod; in her younger brother's database of excuses, that was certainly one of his best.

When she gently eased the door open, reluctant hinges shrieked like startled seagulls. If she hadn't been so excited by the thought of what hidden treasures awaited her, Tilda might have wondered how long it

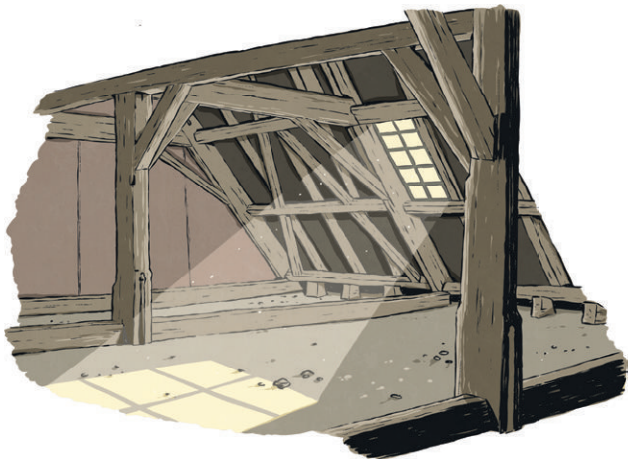
had been since the door had moved.

The combination of light and dust blinded her for a moment as her feet landed on bare floorboards. Warmth she hadn't expected wrapped itself around her like welcoming arms.

Once acclimatised to the room's unexpected brightness, Tilda could hardly believe the sight that greeted her.

The attic stretched across the entire length and width of the building; as Tilda's gaze bounced from one corner to the next, she was shocked to see that every centimetre of space was filled with exactly the same thing...

Nothing.



Chapter 2

Disappointed by Dust

Tilda felt robbed – as if one of the spectres Charlie so feared had crept from behind the bare rafters and made off with all of her hopes.

The original floorboards were almost hidden beneath a toe-deep dusty carpet. Freshly-disturbed streams of dust tumbled like flour from the roughly-sawn ceiling beams and the sloping bare walls. Disappointment prized a sigh from Tilda's lips as her shoulders drooped. The prospect of discovering the previous occupant's forgotten possessions and secrets had actually been quite exciting. Now, the thought of returning to her parents empty-handed seemed to land a large stone in the bottom of

her stomach.

"Any sign of ghosts?"' Charlie called from the stairway behind her.

"Not unless they're hiding beneath all this dirt."

"Eh?" Charlie poked his head around the door. "Ah-chooo!" His sneeze sent a mini ash cloud rolling across the walls. "It's empty!" he said.

He bustled past her, striding out into the middle of the room. Thick shafts of bright yellow sunshine flooded through large skylights.

"How can this room be empty?" Unlike Tilda, Charlie had hoped to find piles of junk and bric-a-brac that he could sell online. "The rest of the house was filled with clutter. This doesn't make sense."

Tilda shrugged as she moved to explore an empty space in the farthest corner of the attic. There were no signs that the room had ever been used. "Maybe the stairs were too steep for Professor Howe."

"Are you kidding? Mum said Professor Howe was only in his early forties," Charlie reminded her, "and he was

a treasure hunter, remember? I doubt he'd let a single set of stairs stand in his way."

"Well, maybe he just didn't like heights."

Charlie continued to explore the room, slapping ceiling beams, stamping on floorboards and tapping the walls.

"What are you doing?"

"Shhh!" Charlie pressed an ear to the wall, drumming against the painted plaster. "I'm checking for hidden panels."

Groaning at the ten-year-old's stupidity, Tilda clasped her hands to her hips. "Charlie, why would anybo-"

"Hah! Found something!"

Her brother seemed to be locked in a corner of the room, hunched like a beggar. His head was so still that it might have been glued to the wall itself. Only the index finger of his left hand moved, tapping gently.

"There's definitely something here."

"Yeah, it's called the wall!"

"No, no! Really!" With his other hand, Charlie beckoned his sister towards him. "There's something behind this plasterboard."

Slowed by doubt, Tilda moved to join her finger-tapping brother.

"It sounds hollow," Charlie told her, shuffling to his left to make room. "Listen for yourself."

Tilda gave Charlie a weary glance as she pushed her ear against the thinly-painted plaster.

"Listen!"

Charlie tapped a section of wall high above her head. It sounded flat and solid.

When Charlie tapped again, this time slightly lower, Tilda heard an identical sound.

"It's just a normal wall, Charlie."

"Keep listening."

When Charlie tapped just centimetres from his sister's head, the difference was immediate. Tilda jerked away

from the wall, as if she had just been electrocuted.

"You heard it, right?" asked Charlie. "It sounds hollow."

Tilda nodded. Her brother was correct. That didn't happen often!

"Maybe there's something hidden behind it." Charlie suggested. "We need to find out."

"But it's a solid wall," Tilda reminded him. "We can't just break through it."

They both took a time-out, scratching their heads. Each studied the seemingly ordinary wall in front of them. Tilda scanned its length and breadth, searching for any flaws or joins that might indicate a doorway.

Taking a more hands-on approach, Charlie dropped to his knees and began tapping the floorboards nearest the wall.

When he looked back towards his sister, his excited smile told Tilda that the hunt for treasure was back on.

"We were looking in the wrong place. See!"

Charlie's small fingers hooked themselves around an almost invisible groove in the wood, prizing a one-metre-square section of floorboards up off the ground.

Tilda gasped, peering down into a thin shaft containing a narrow ladder. "A trapdoor!"

Oddly, the rungs of the wooden ladder were angled from the floor towards the wall. Anyone climbing down them would have to duck to avoid striking the top half of their body against hard plaster.

Charlie thrust his head and shoulders into the space, twisting so he could peer beneath and behind the wall.

"There's a small room behind the wall," his voice sounded muffled and distant. "And this one's not empty!"

Chapter 3

Trapdoor Treasure Trove

The day had just become way more interesting, sending Tilda's emotions on a rollercoaster ride from deep disappointment back to white-knuckle excitement.

Following her brother, Tilda was surprised to find that the underfloor shaft actually contained a second ladder. It was identical in size to the first but angled in the opposite direction, up towards the hidden room.

Even before she began climbing the second set of rungs, Tilda knew that the secret room would be nothing like the attic. She could smell the difference.

The air was thick with the scent of history. The antique shop below them had a similar smell: occasional wafts of slowly-decaying wood and fabrics, ancient fermenting polish and water-damaged paper gradually decomposing. Yet those smells were modern compared with the cocktail of odours that seemed to form a barrier between the secret room and the rest of the world. This was the scent of ancient artefacts, spewing fragrances that didn't belong in the twenty-first century.

"You have got to see this." Charlie had already scaled

the second ladder and was now kneeling on the floor of the secret room. "It's like some kind of vault."

Excitement sent giddy butterflies fluttering in Tilda's stomach. As she scrabbled to join her brother, the sights that greeted her struck like a freeze-ray.

Charlie had been wrong. This wasn't a vault at all. This was more like a treasure chamber.

"Wow!"

"Told you," Charlie giggled. "This lot must be worth a fortune!"

The room itself was larger than Tilda had expected, perhaps even longer and wider than the family's garage. Yet it was so jam-packed with clutter that there was barely enough room for two people.

A small desk and chair had been pushed into one corner, piled high with ledgers and thick scrolls. Wooden trunks and chests, mostly studded with iron bands and rivets, were stacked in the remaining corners. Yet it was the room's walls that entranced Tilda. They were a kaleidoscope of treasures, reaching forward from centuries past to create the most incredible mural.

Her eyes could barely take it all in; beautiful portraits and landscape paintings hung in carved golden frames across one entire surface. Opposite, chainmail shirts, leather jerkins and bronze chest plates watched from the wall like soldiers waiting for battle. Another wall housed heaving shelves piled high with leather-bound books, wax-sealed folders wrapped in ribbon and stacks of what looked like parchment.

"It's incredible." Tilda's heart was racing so hard that she thought it might tear a hole through her chest. Perhaps this was this how Howard Carter felt when he crashed through the wall of Tutankhamun's tomb.

Above her, Charlie plucked a musket from a ceiling hook and peered down its barrel.

"Do you think this thing is loaded?"

Tilda snatched it from him and clambered up into the room. The weapon felt heavy in her hand; the wooden stock had the shape and smoothness that only real fingers could forge.

"We shouldn't touch any of these things," Tilda said, carefully placing the musket back onto its hook. Beside it, a collection of sheathed swords and rifles

hung like macabre stalactites.

"But they're ours now," Charlie pointed out. "Mum and Dad bought the house and all its contents – and this looks a lot like contents to me."

"But they don't belong here," Tilda warned him. "This kind of stuff should be in a museum. This is real history."

"Do you think it was Professor Howe's personal collection?"

"Dunno. Tilda squeezed past her brother, heading for the desk and chair. For some reason, she couldn't shake the feeling they were trespassing. "Maybe there's something over here that can tell us more."

Seated at the small desk, Tilda carefully began searching the stacks of papers and ledgers for some kind of clue. She tried not to think about the items she was touching. Most were handwritten in ink, scratched across hard paper that must have been made centuries earlier. Some of the ledgers appeared even older, written in languages she couldn't even begin to decode. Yet one item stood out like a rose in a bed of dandelions: a journal so new it almost glowed.

When she opened it up and began to read the neatly-arranged handwriting, her jaw slowly dropped open.

"What is it?" Charlie leaned over his sister's shoulder. "What does it say?"

Tilda shook her head; this certainly wasn't what she had expected to find.

"Either he was writing some kind of fantasy novel, or Professor Howe had gone a bit bonkers."

As she ventured deeper and deeper into the professor's journal, the content became stranger and stranger.

"None of this makes sense... he's talking about hunting for treasure by going back in time. Look," she jabbed at a page of writing. "He mentions the musket you showed me... says he stole it from a soldier during the English civil war."

She turned back a few pages and next pointed to a paragraph of text. "And here, he says one of those duelling swords was given to him as a gift by a fifteenth-century nobleman."

Charlie sniggered. "Maybe he didn't disappear at all.

Maybe he got a job as a Hollywood script writer... sounds like it would make an awesome sci-fi movie."

Tilda turned through more of the journal's pages, causing a loose sheet to drop onto the floor.

Charlie stooped to pluck it off the ground. "Hey, what's this?"

They both stared at a strip of tightly-folded paper. Two words were written neatly across the front: **ACCESS GATES**.

"Why would Professor Howe have a leaflet about gates?" Charlie wondered. "This house doesn't even have a garden."

Tilda snatched the leaflet from her brother. "Gate is just another word for a door, silly. Ancient cities like York had doors around the city walls to keep people out. They called them gates."

"Ah, I see. So that's why you get places like Micklegate and Fishergate?"

"Exactly!" Tilda nodded. "Maybe this is just a map of all those ancient gates."

She gently cleared an area of space on the desktop and slowly unfolded the leaflet. Section by section, a map showing the streets of York emerged. Yet this wasn't quite the kind of map Tilda had expected to see. Not one of the city's famous gates was included.

Instead, the detailed sketch showed York's modern-day streets and roads, many leading to and from a collection of historic sites: the medieval Minster; Viking encampments; the first Roman settlements; a Norman garrison; even places Tudor kings had once called home.

The map contained a score of different locations, each marked and identified by its own neatly-drawn door. Beside many of these doors sat a series of dates and tiny icons in the shape of a key. One or two even had the universally recognised sign for danger – a skull and crossbones.

"What do you think it means?" Charlie asked.

Tilda kept gazing at the map, looking from one door to the next, hoping to see a pattern. Finally, she spotted something she recognised.

Turning back to the professor's journal, she flicked through

its pages until she found the one she was looking for.

As her finger pressed against a date scribbled on the map, she compared it to the one at the top of the journal page. They matched!

She checked several more, finding identical matches too. Suddenly, Tilda understood how the two documents worked together. The buzz of solving that particular puzzle made her wonder if she was perhaps more suited to a career as a detective than an antiques dealer.

“This can’t be possible,” she told Charlie. “It has to be made up.”

Her brother’s puzzled expression prompted more explanation.

“These dates all match the detailed entries in the professor’s journal. And each entry talks about a single trip he made on that day.”

Now Charlie looked even more puzzled. “What’s so unusual about that? Everyone takes trips.”

“Not trips like these,” Tilda insisted. “These are trips back in time."

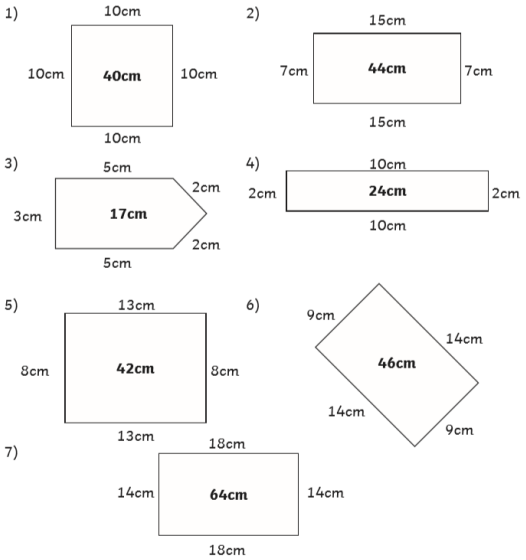
Numeracy Answer Sheet

Lesson 1

Perimeter Answers

I am learning to calculate the perimeter of shapes.

Calculate the perimeter of each of these shapes. Write the answer inside the shape. Always check the units of measure and remember that these drawings are not to scale!



Perimeter Answers

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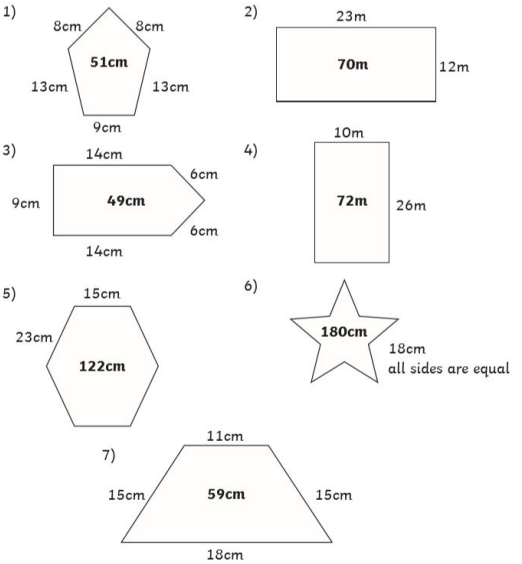

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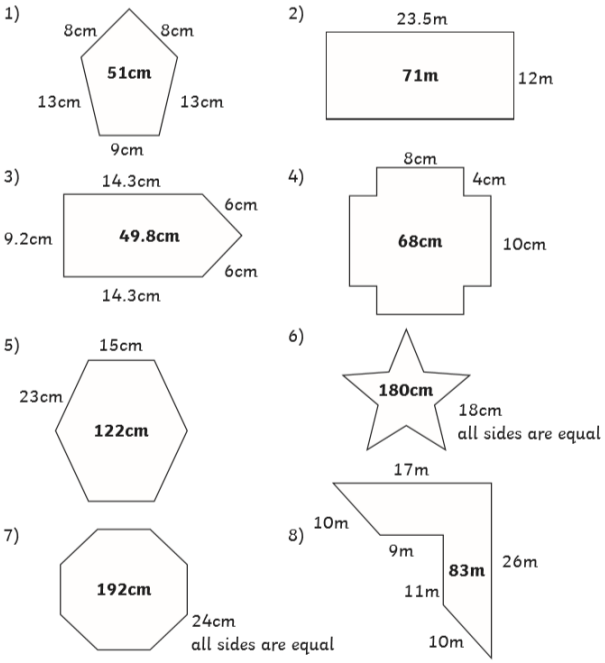


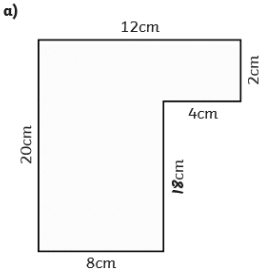
Lesson 2

Answers

A	**16cm**	F	**22cm**	K	**20cm**	P	**48cm**
B	**16cm**	G	**22cm**	L	**20cm**	Q	**54cm**
C	**20cm**	H	**24cm**	M	**38cm**	R	**40cm**
D	**18cm**	I	**28cm**	N	**48cm**	S	**74cm**
E	**30cm**	J	**34cm**	O	**38cm**	T	**66cm**

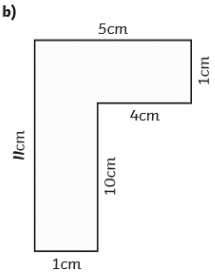
Lesson 3

1) a)



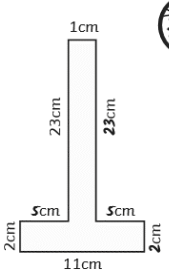
Perimeter = **64cm**

b)



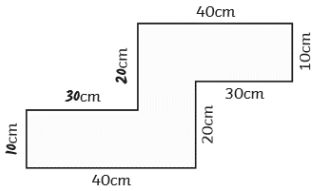
Perimeter = **32cm**

c)



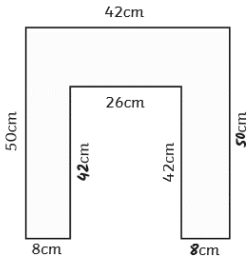
Perimeter = **72cm**

d)



Perimeter = **200cm or 2m**

e)



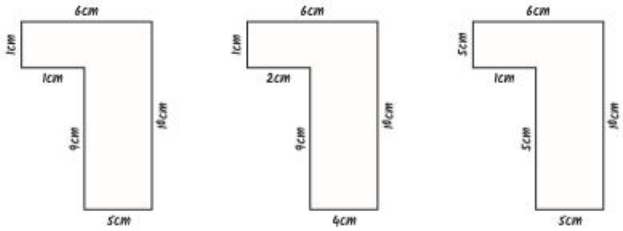
Perimeter = **268cm or 2m 68cm**

2) *Multiple answers are possible. Accept any rectilinear shapes drawn with the correct measurements and a total perimeter of 20cm.*

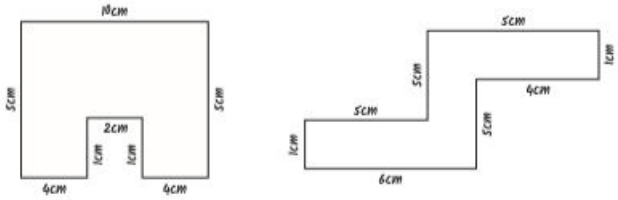
1) *All the strategies will work. The side at the bottom of the shape has a value of 18cm. The opposite sides should therefore also make a total of 18cm. All the number sentences and models and images show this. In order to work out the missing value, the calculation would be 18cm – 7cm, which is shown by all the strategies suggested. The missing value is 11cm.*

2) *Solange has only added up the measurements of five of the sides – she has missed one out by mistake. The correct perimeter with all the sides added up is 120cm.*

1) a) *Multiple answers are possible. Here are three possible solutions (not to scale).*



b) *Multiple answers are possible. Here are two possible solutions (not to scale).*



2) *The width of each rectangle is 4cm.*
To find the length of one rectangle, we multiply 4cm by 6: 4cm × 6 = 24cm

To find the length of one of the sides of the square inside, we subtract the width of one rectangle from the length of one rectangle: 24cm – 4cm = 20cm

20cm x 4 = 80cm

The square inside the shape has a perimeter of 80cm.

Lesson 4

Area of Compound Shapes **Answers**

★

Question	Answer		
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.			
1	Area a: **4cm²** Area b: **10cm²** Total: **14cm²**	6	Area a: **20cm²** Area b: **18cm²** Total: **38cm²**
2	Area a: **4cm²** Area b: **6cm²** Total: **10cm²**	7	Area a: **18cm²** Area b: **12cm²** Area c: **10cm²** Total: **40cm²**
3	Area a: **10cm²** Area b: **3cm²** Total: **13cm²**	8	Area a: **8cm²** Area b: **12cm²** Area c: **10cm²** Total: **30cm²**
4	Area a: **12cm²** Area b: **24cm²** Total: **36cm²**	9	Area a: **14cm²** Area b: **15cm²** Area c: **16cm²** Total: **45cm²**
5	Area a: **9cm²** Area b: **10cm²** Total: **19cm²**	10	Area a: **16cm²** Area b: **12cm²** Area c: **15cm²** Total: **43cm²**

★★

Question	Answer		
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.			
1	Total: **42cm²**	6	Total: **96cm²**
2	Total: **35cm²**	7	Total: **57cm²**
3	Total: **38cm²**	8	Total: **88cm²**
4	Total: **42cm²**	9	Total: **94cm²**
5	Total: **38cm²**	10	Total: **104cm²**

★★★

Question	Answer		
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.			
1	Total: **105m²**	4	Total: **71m²**
2	Total: **98m²**	5	a: **14m** b: **6m** c: **6m** d: **2m** e: **3m** f: **6m** g: **5m** h: **10m**
3	Total: **59m²**	6	a: **12m** b: **4m** c: **10m** d: **3m** e: **4m** f: **5m** g: **6m** h: **3m** i: **12m** j: **15m**

Lesson 5

1)

Shapes with an Area Greater Than 5 Squares	Shapes with an Area Less Than 5 Squares
A, D, F, H	B, C, E, G, I

2) a) $12 < 14$
b) $16 > 14$
c) $15 = 15$

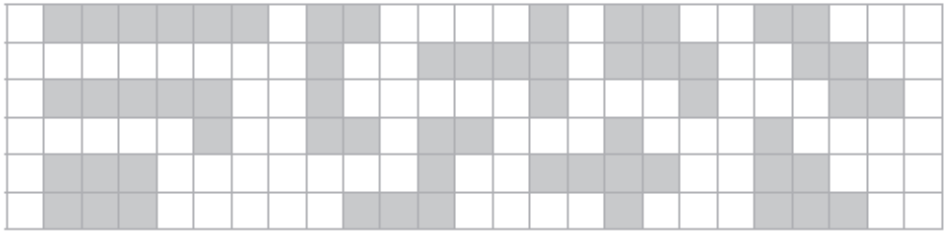
3) C, D, A, E and B

1) C is the odd one out because it has an area of 9 squares. Shapes A and B both have the same area of 8 squares. The area of shape C is greater than the area of shapes A and B.

2) Gavin may have calculated the area of each shape correctly but ordered the shapes starting with the smallest area instead of the greatest area. Therefore, the order is incorrect and should be B, A, C.

3) Both children are incorrect. Each of the shapes has an area of 14 squares so they are equal.

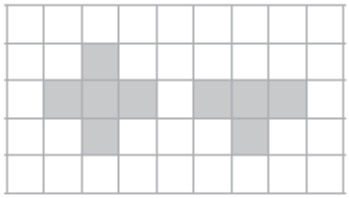
1) $5 < 6 < 7$
Mark correct if the shape has an area of 6 squares. There are many possible rectilinear shapes that can be created with 6 squares. Here are some examples:



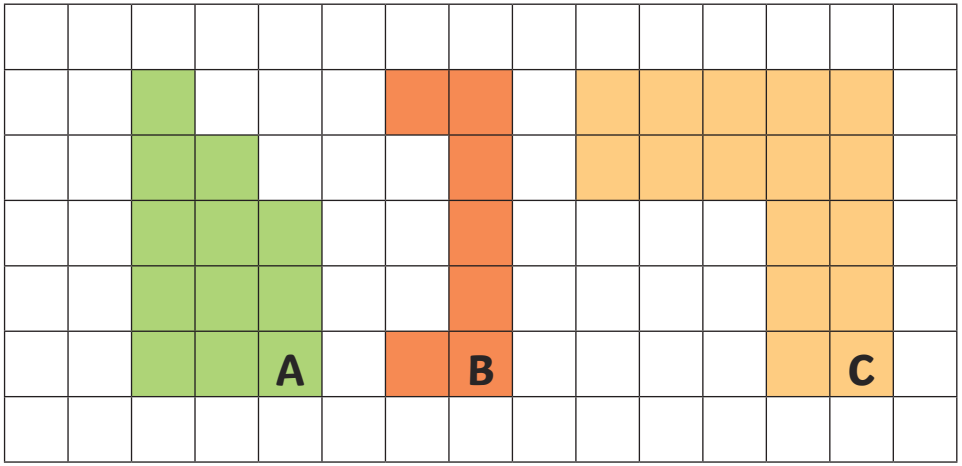
2)

Child	Area	Shape
Holly	7	B
Silas	8	E
Craig	9	C
Shashank	5	A
Lindsey	6	D
Nuala	10	F

3) Jo has removed one outer square on every new step moving in clockwise 90° rotations. The area decreases by one square each time.

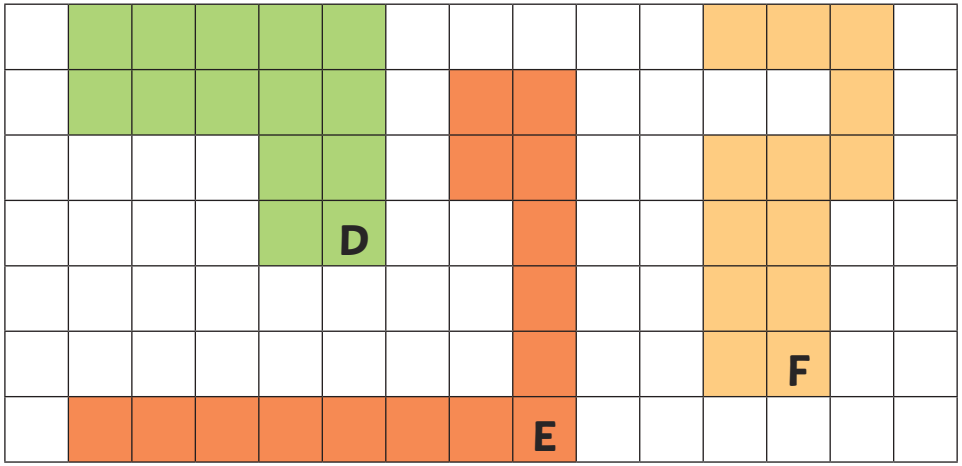


Find the perimeter of these shapes in centimetres. *not to scale



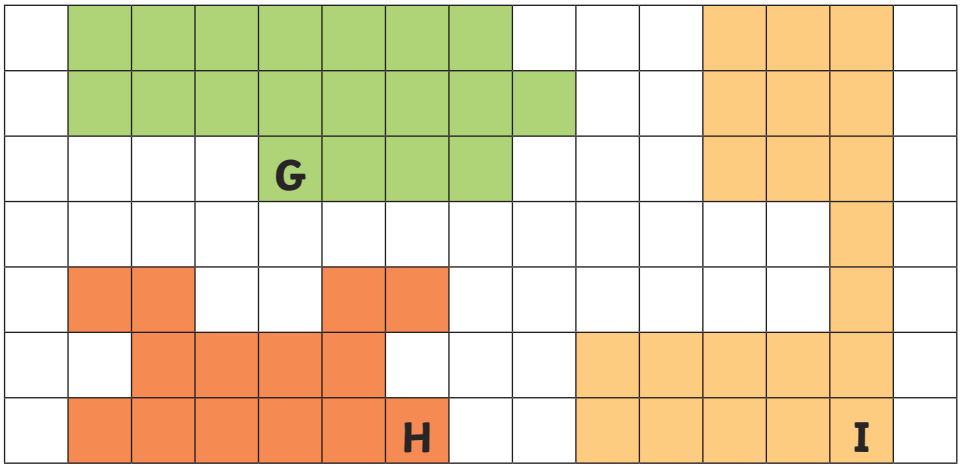
On centimetre squared paper, draw 3 rectilinear shapes with a perimeter of 22cm.

Find the perimeter of these shapes in centimetres. *not to scale



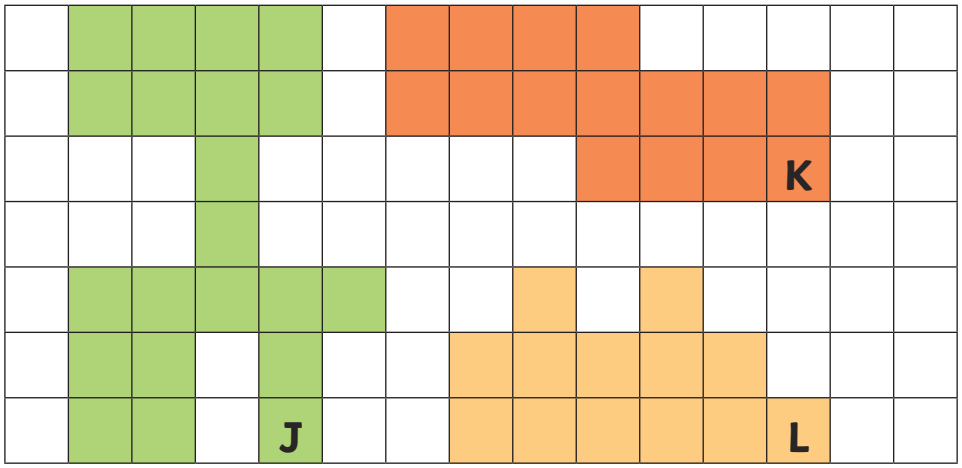
On centimetre squared paper, draw 3 rectilinear shapes with a perimeter of 14cm.

Find the perimeter of these shapes in centimetres. *not to scale



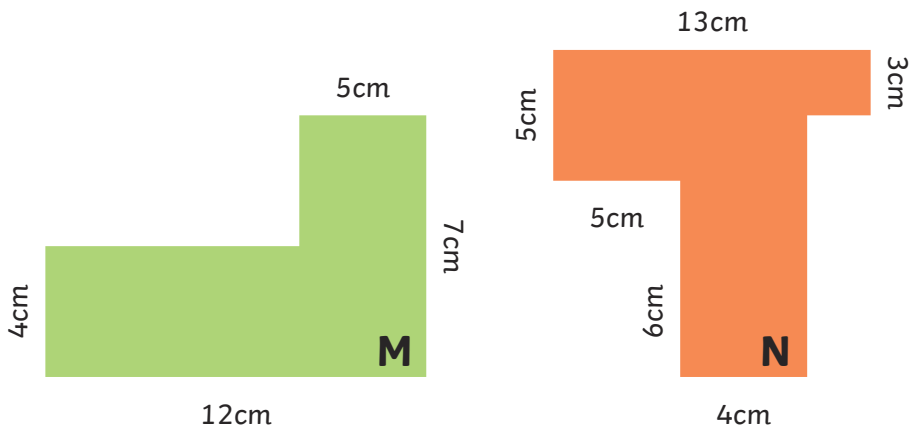
On centimetre squared paper, draw 3 rectilinear shapes with a perimeter of 8cm.

Find the perimeter of these shapes in centimetres. *not to scale



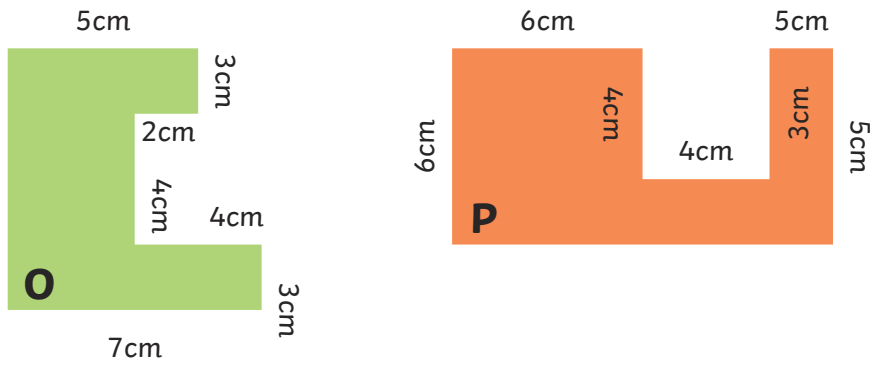
On centimetre squared paper, draw 3 rectilinear shapes with a perimeter of 26cm.

Find the perimeter of these shapes in centimetres. *not to scale



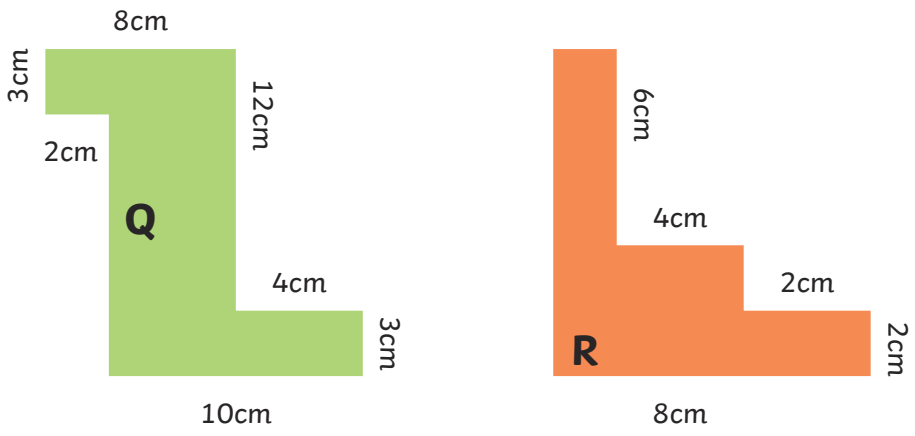
Draw a rectilinear shape with a perimeter of 38cm. Mark the length of each side.

Find the perimeter of these shapes in centimetres. *not to scale



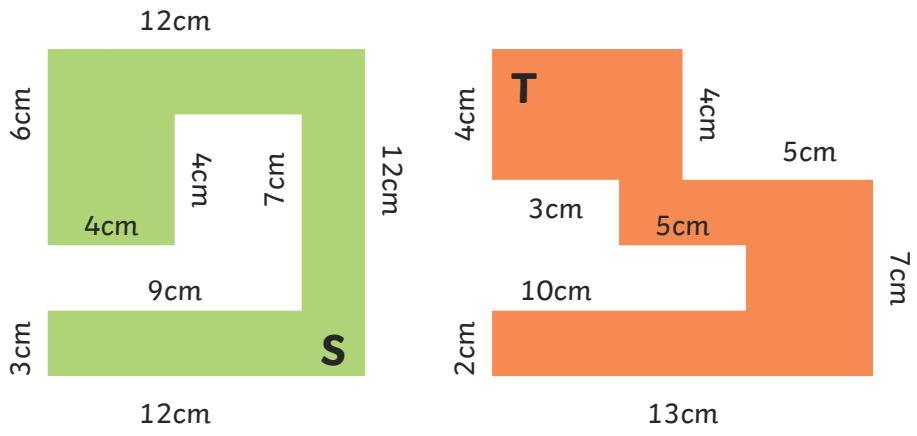
Draw a rectilinear shape with a perimeter of 48cm. Mark the length of each side.

Find the perimeter of these shapes in centimetres. *not to scale



Draw a rectilinear shape with a perimeter of 56cm. Mark the length of each side.

Find the perimeter of these shapes in centimetres. *not to scale



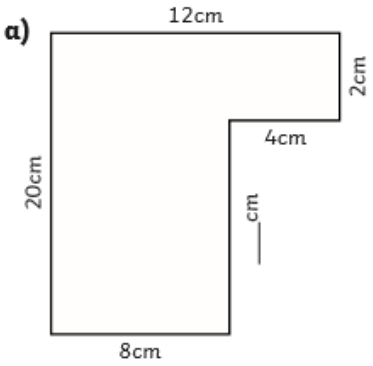
Draw a rectilinear shape with a perimeter of 76cm. Mark the length of each side.

Answers

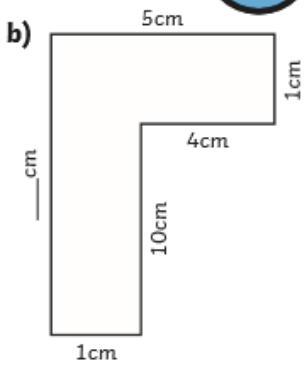
A	**16cm**	F	**22cm**	K	**20cm**	P	**48cm**
B	**16cm**	G	**22cm**	L	**20cm**	Q	**54cm**
C	**20cm**	H	**24cm**	M	**38cm**	R	**40cm**
D	**18cm**	I	**28cm**	N	**48cm**	S	**74cm**
E	**30cm**	J	**34cm**	O	**38cm**	T	**66cm**

1) Find the missing side lengths and calculate the perimeter of these rectilinear shapes.

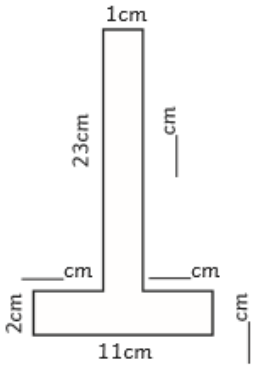
a)



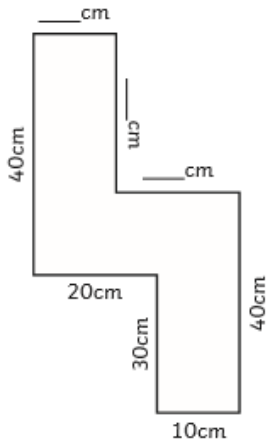
b)



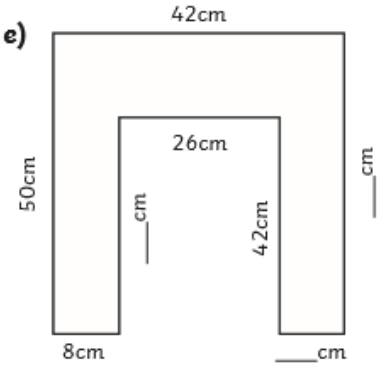
c)



d)

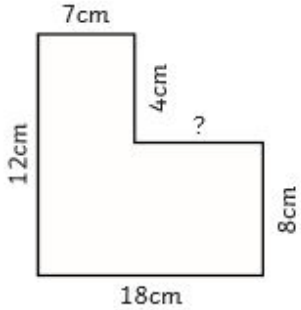


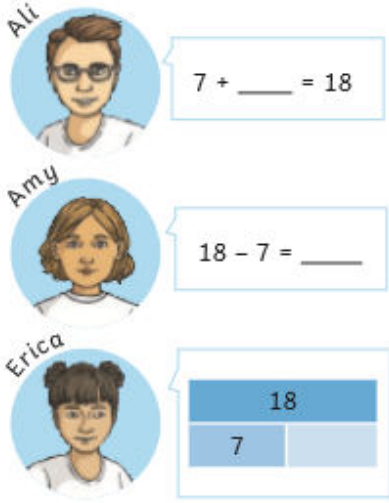
e)



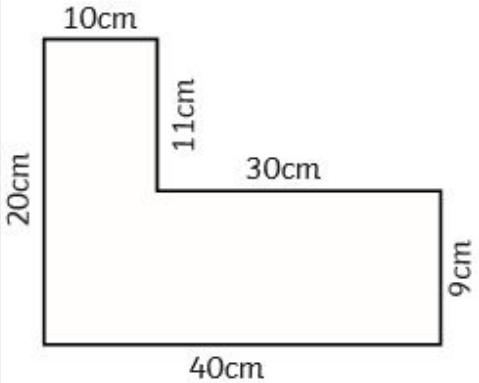
2) Draw three different rectilinear shapes that have a perimeter of 20cm.

1) Carlos wants to calculate the perimeter of this rectilinear shape but it has a measurement missing from one of its sides. His friends have suggested different ways of finding the missing side. Which strategies will work? Explain your reasoning.





2) Solange has worked out the perimeter of this rectilinear shape. Can you explain her mistake and find the correct answer?

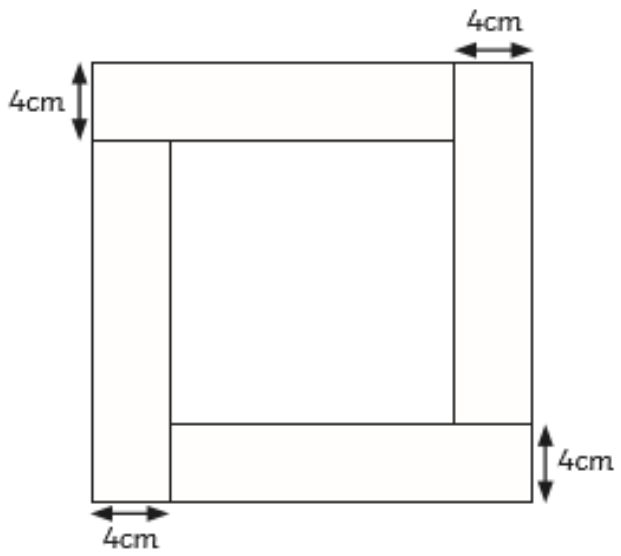


	4	0		
	2	0		
	1	0		
	1	1		
+	3	0		
1	1	1	c	m

1) **a)** Draw a rectilinear shape that has a perimeter of 32cm. The shape must only be made up of two rectangles. Find three possible solutions.

b) Find a fourth possibility that uses three or more rectangles.

2) Look at the shape below. It has been created using four rectangles, each with a width of 4cm.
The length of each rectangle is 6 times the width.
What is the perimeter of the square inside?

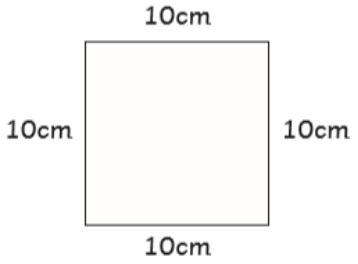


Perimeter

I am learning to calculate the perimeter of shapes.

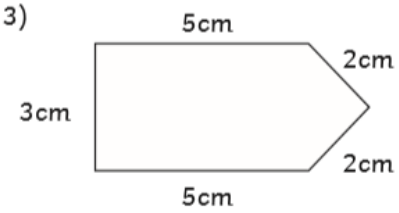
Calculate the perimeter of each of these shapes. Write the answer inside the shape. Always check the units of measure and remember that these drawings are not to scale!

1)



2)

3)



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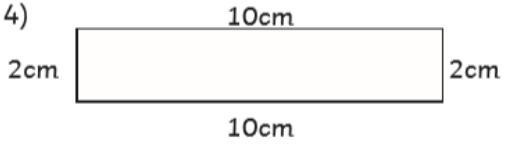
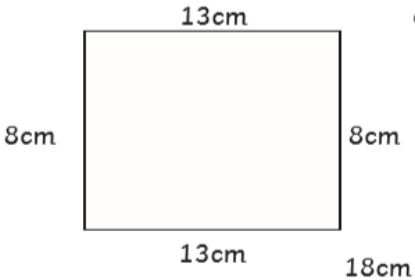
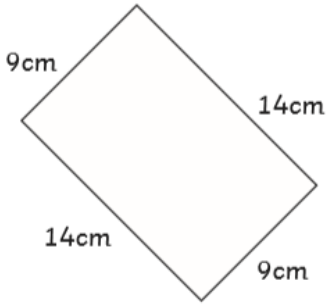


5)



6)



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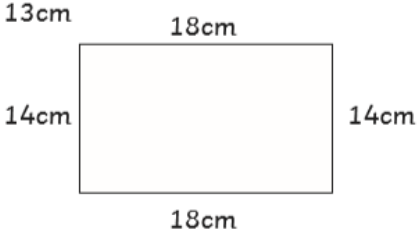

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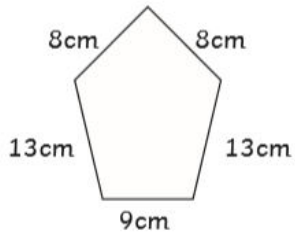

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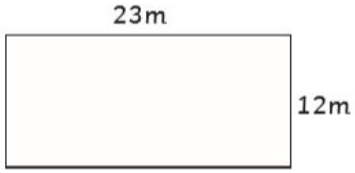

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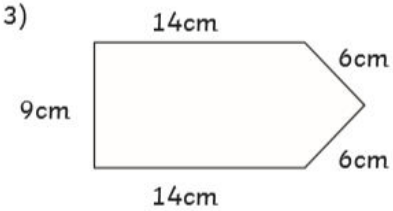

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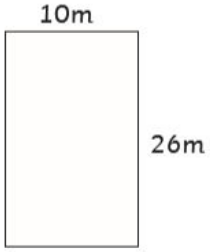

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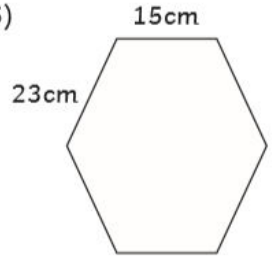

6)

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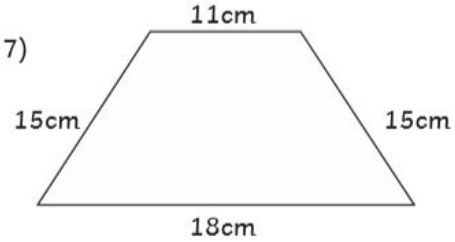

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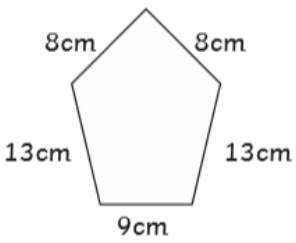
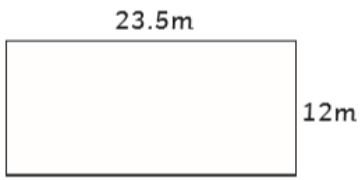
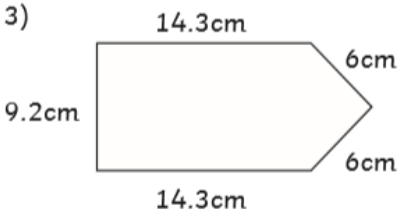


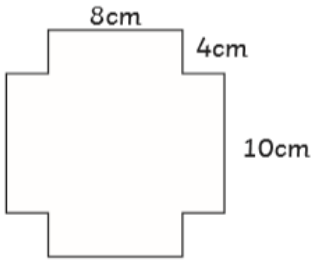
2)



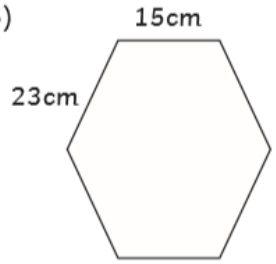
3)



4)

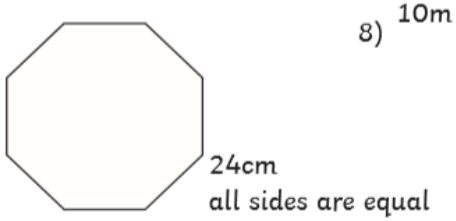


5)

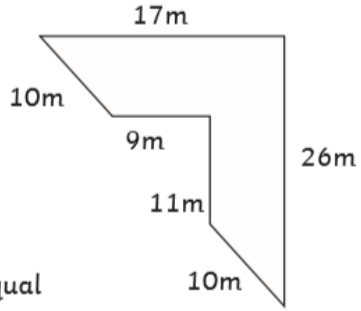


6)

7)



8)

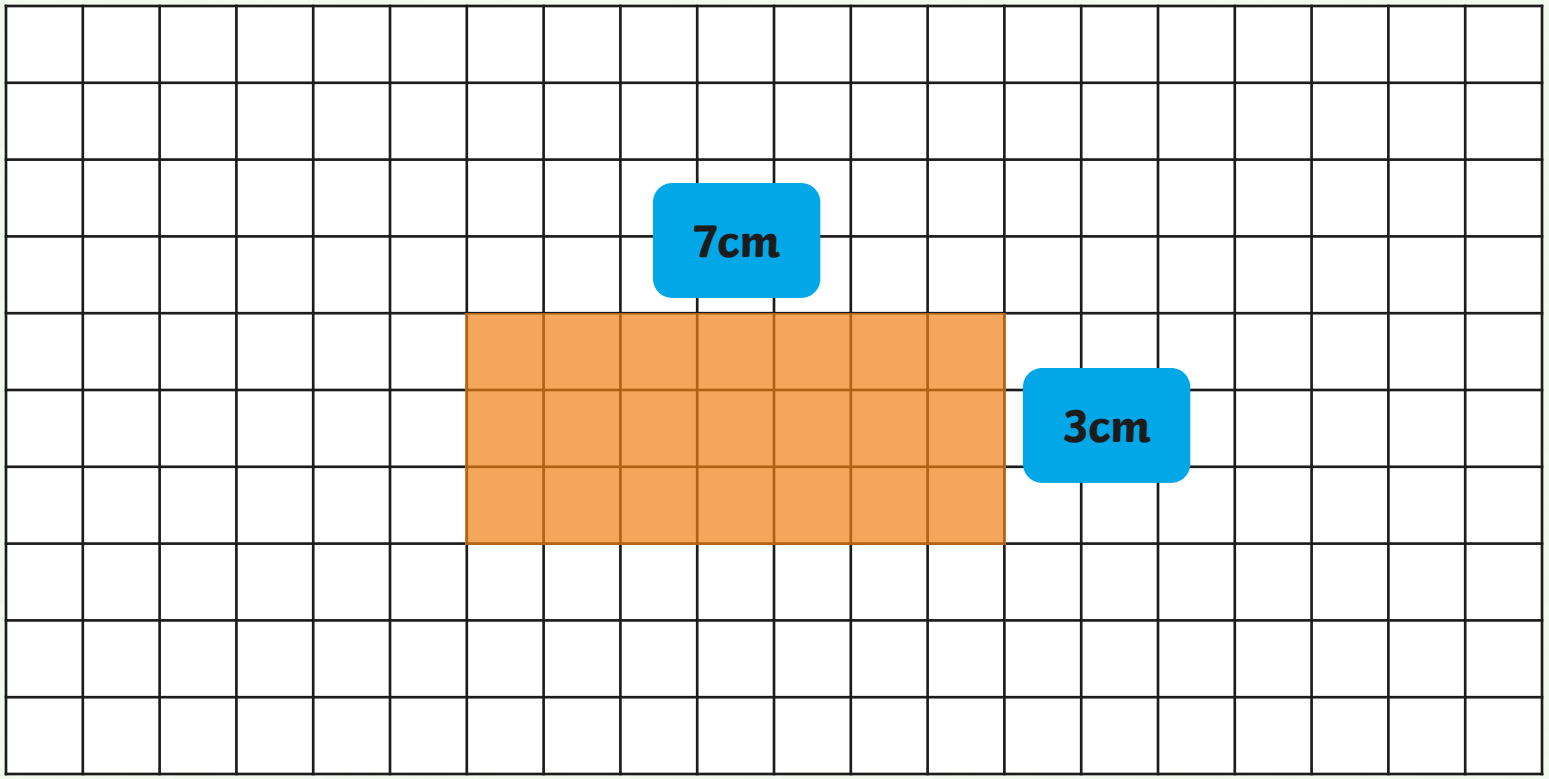


Calculate Area

Interactive Powerpoint

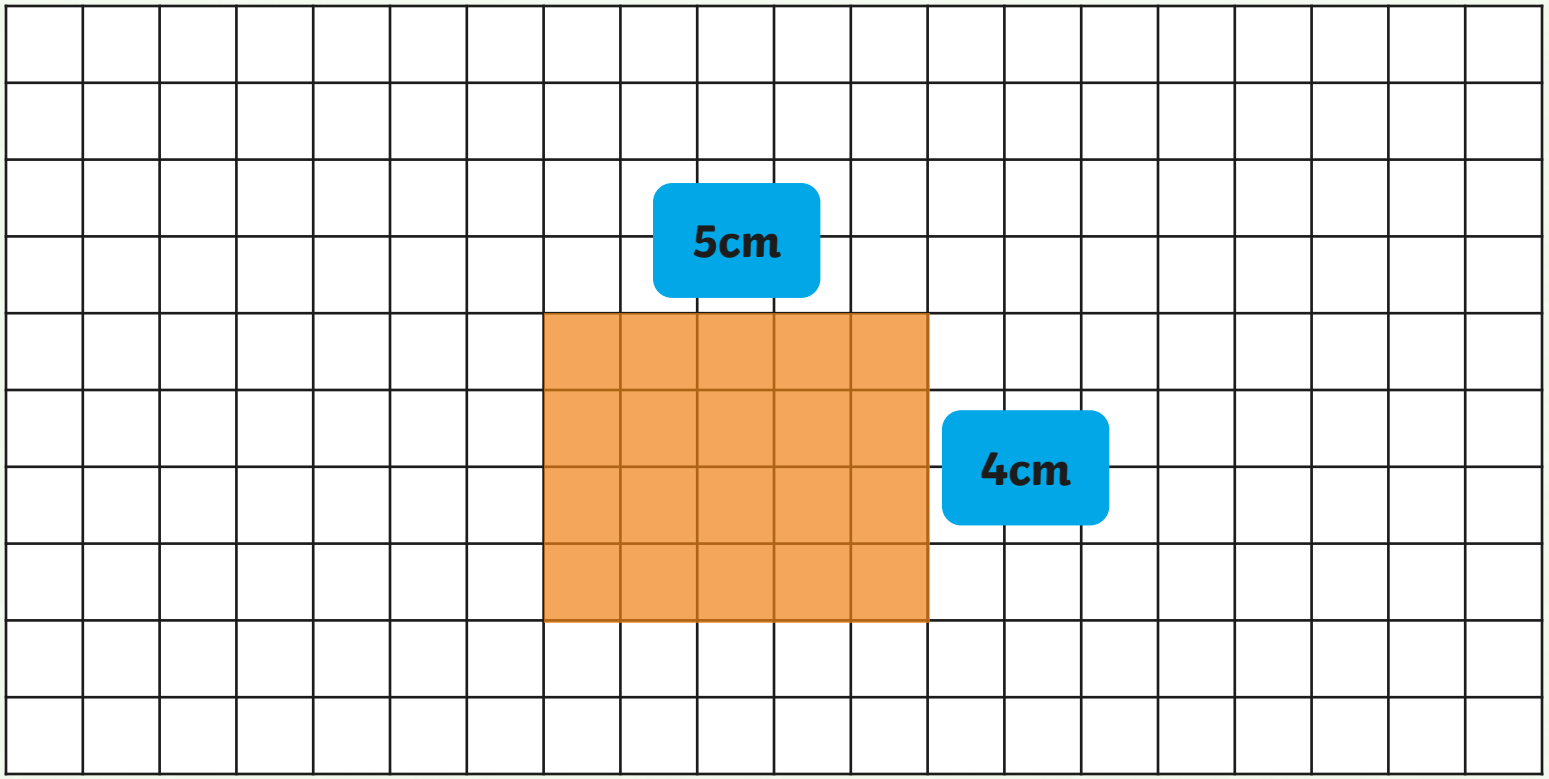
twinkl

Area measures the surface inside a shape. Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



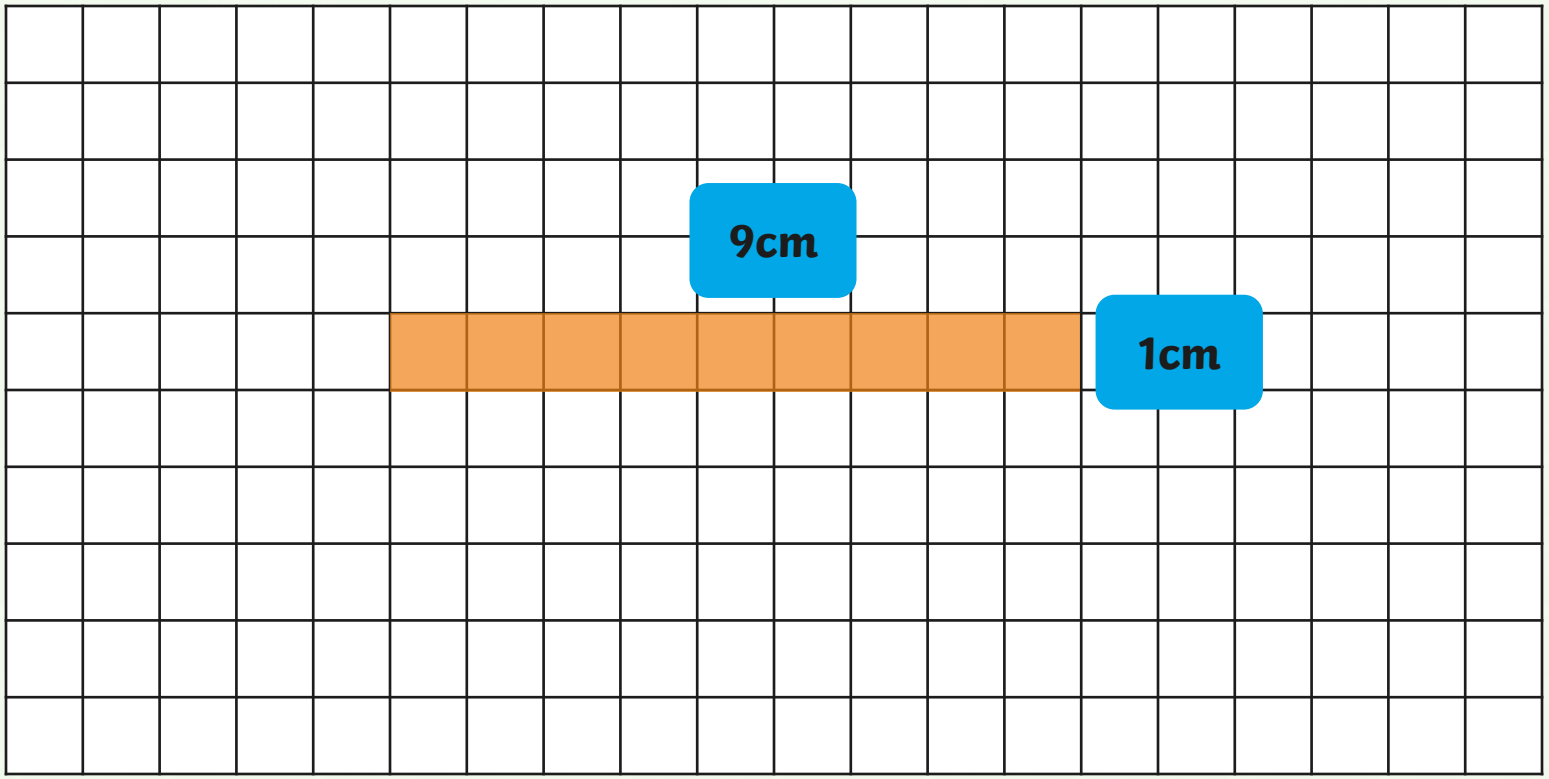
7cm × 3cm = 21cm^2

Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



$5cm \times 4cm = 20cm^2$

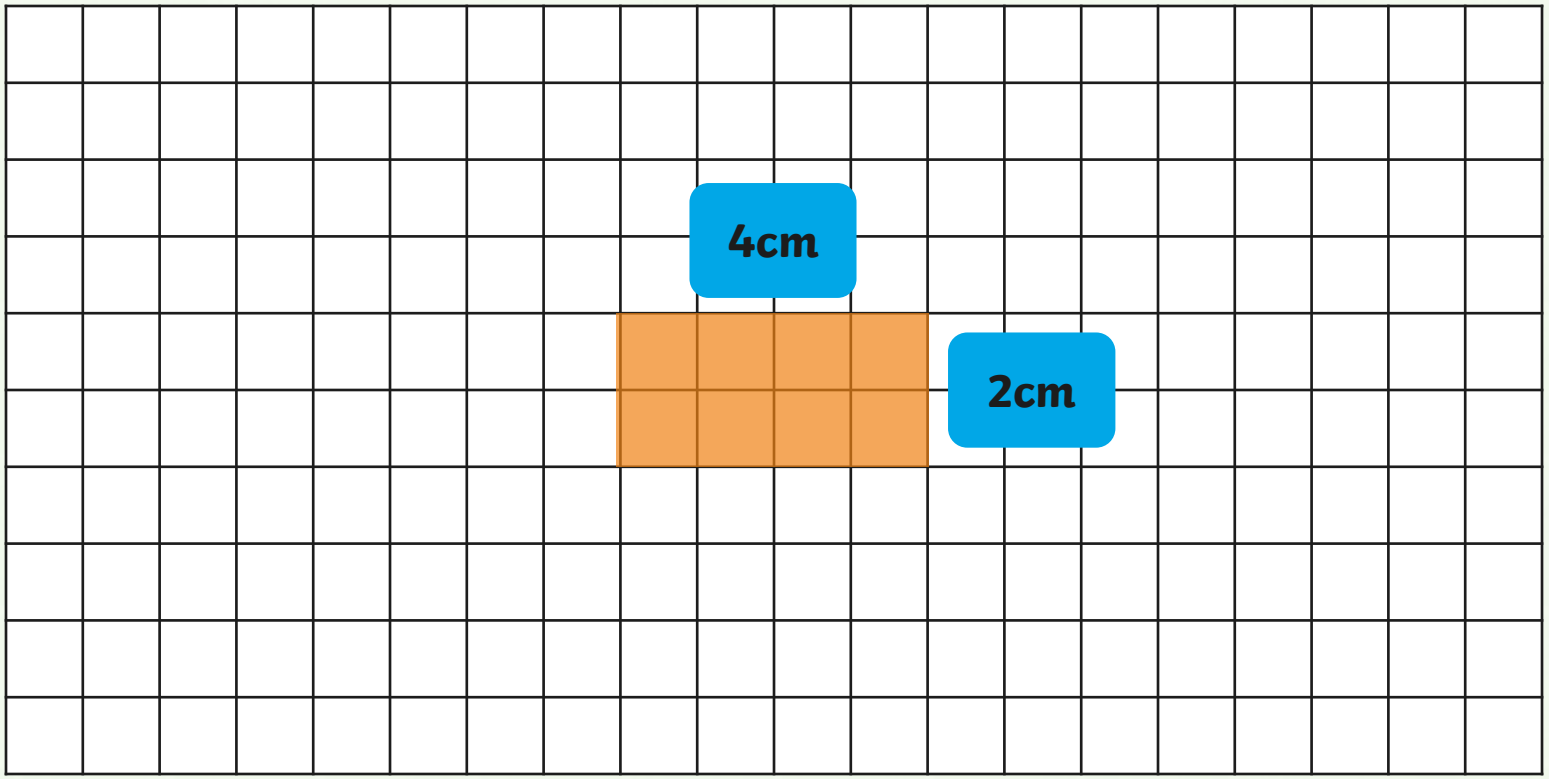
Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



?cm × ?cm = $9cm^2$

What are the calculations

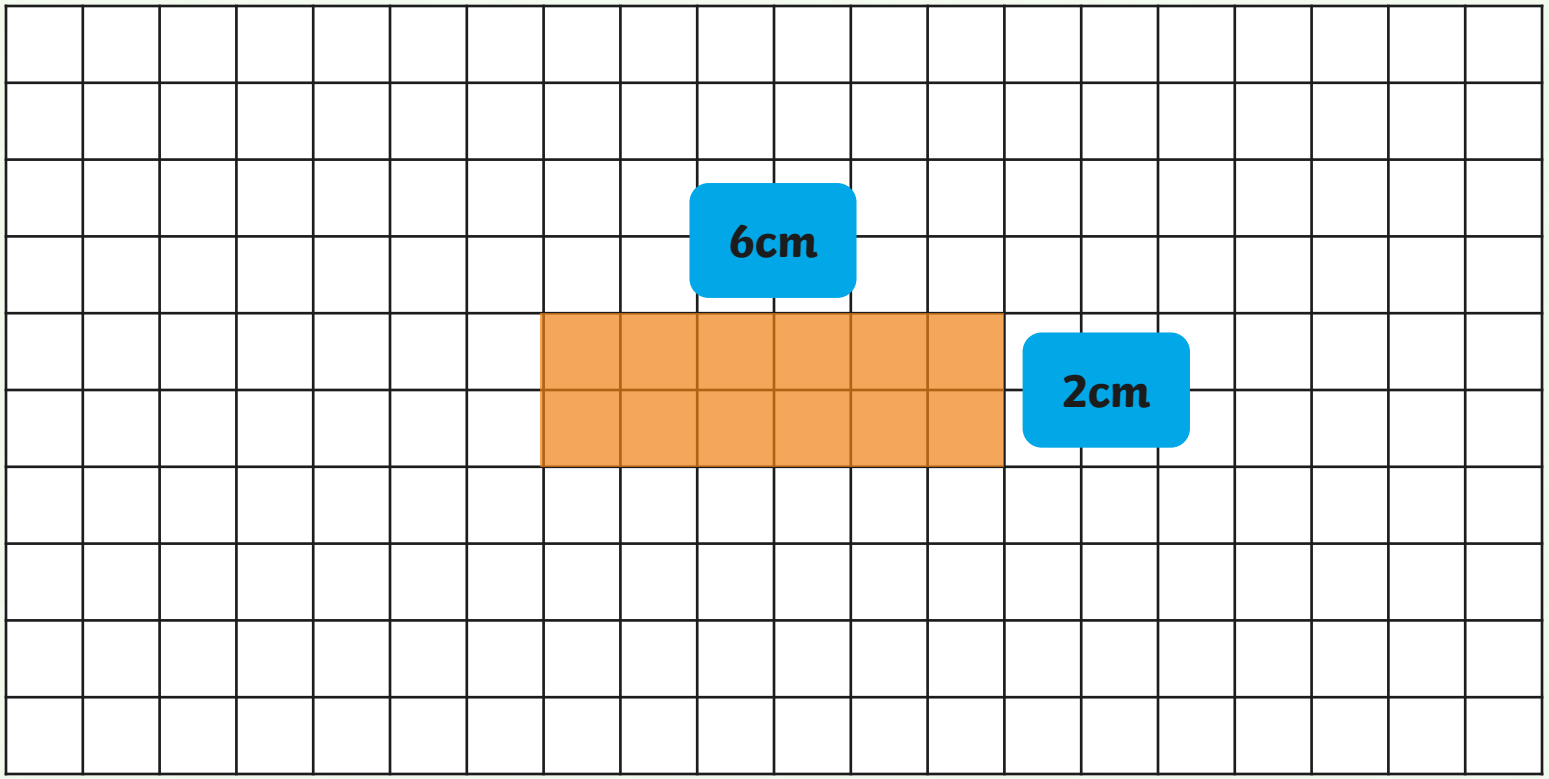
Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



?cm × ?cm = $8cm^2$

What are the calculations

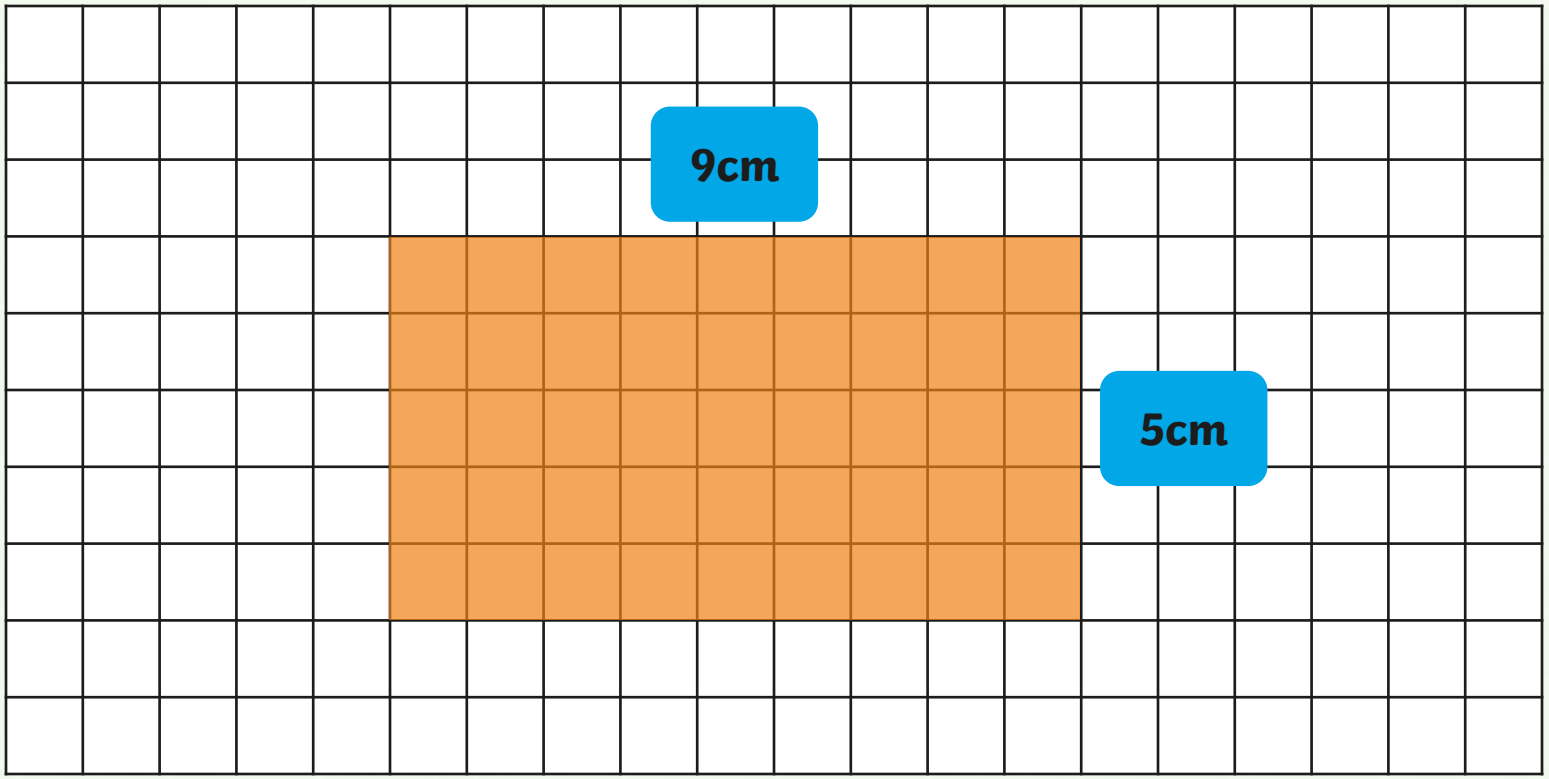
Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



?cm × ?cm = ?cm^2

What are the calculations

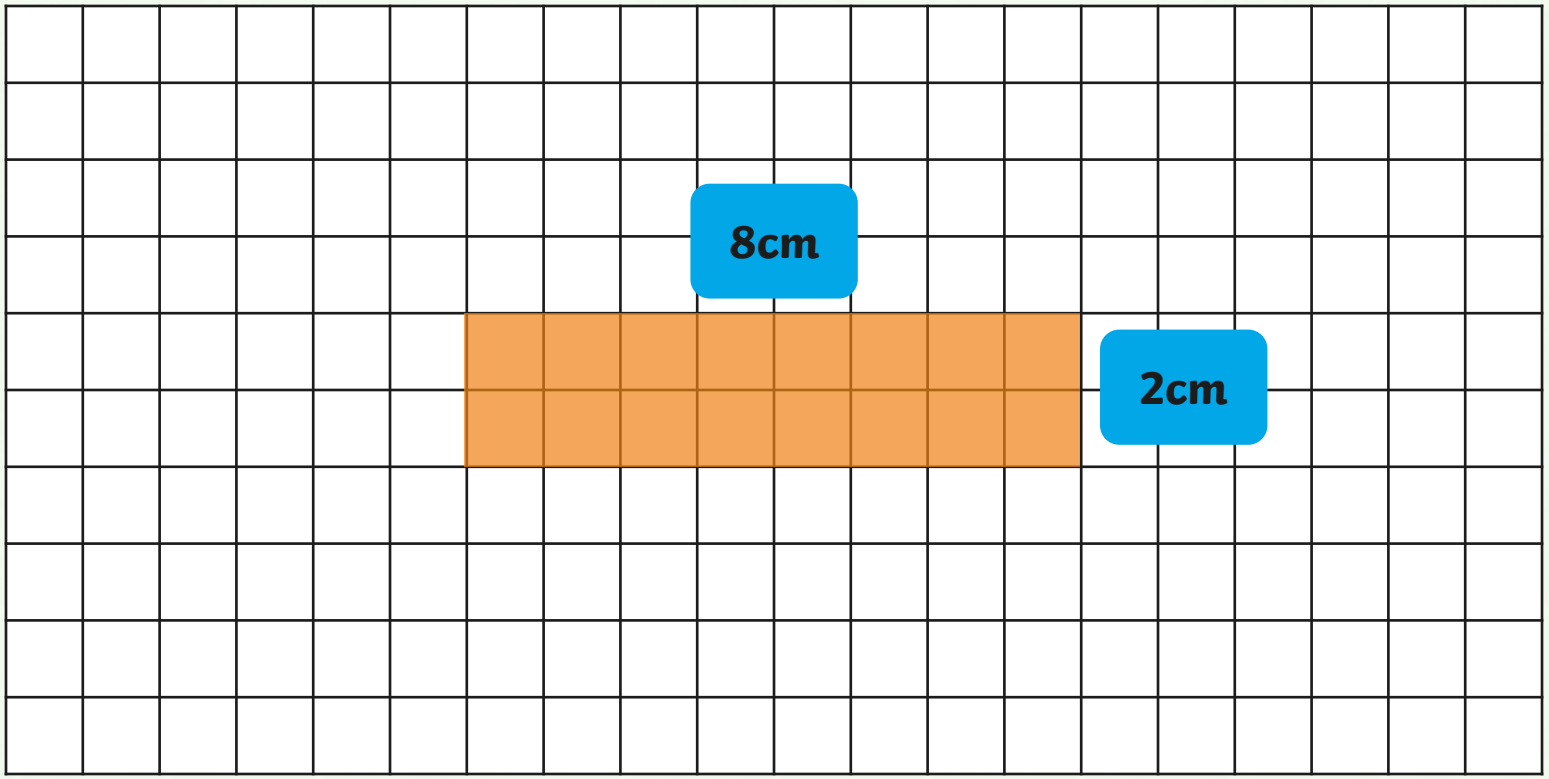
Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



?cm × ?cm = ?cm^2

What are the calculations

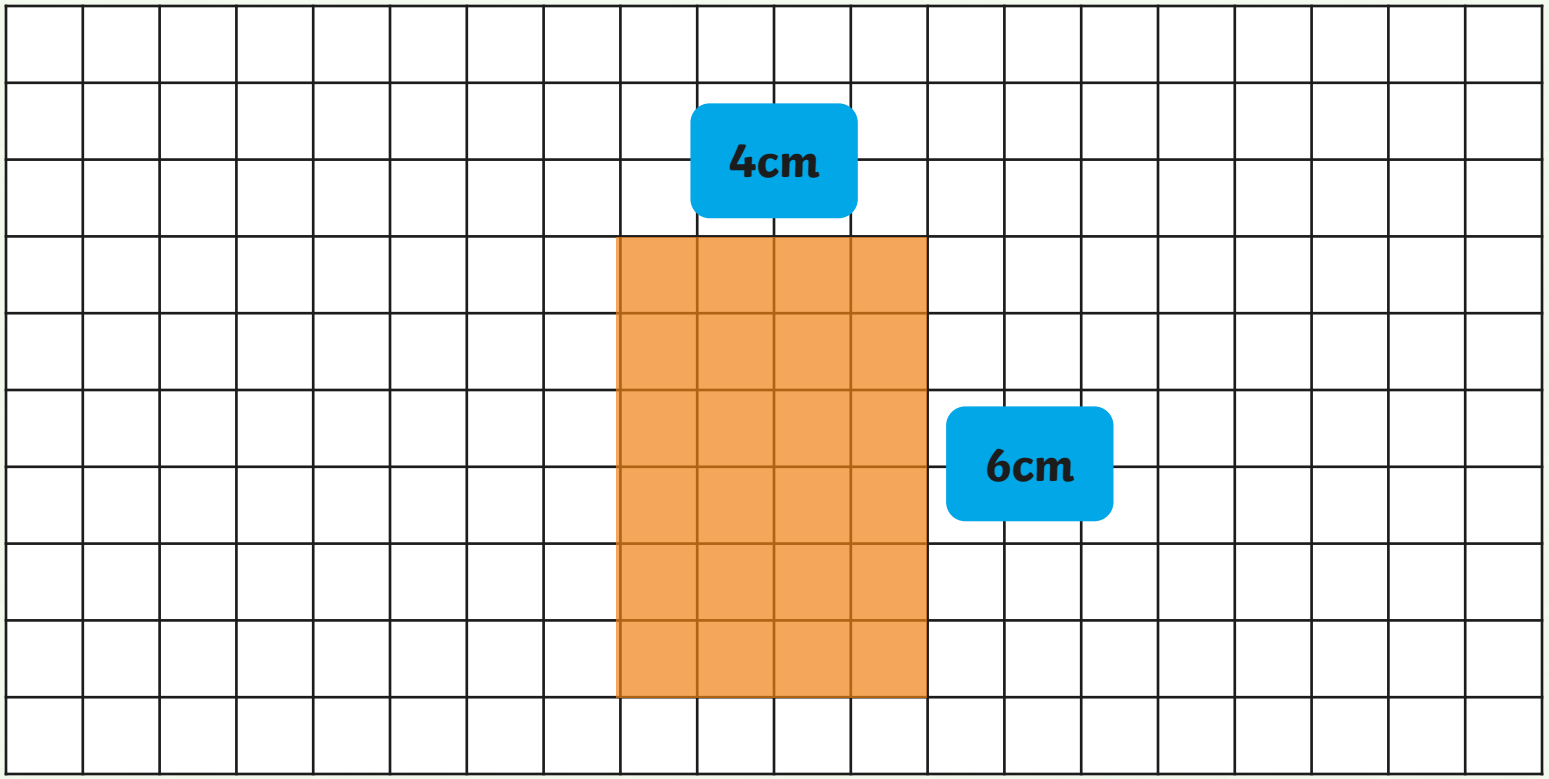
Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



?cm × ?cm = ?cm^2

What are the calculations

Count the width and the length of 2 sides. Then multiply the width and length to find the area of the shape.



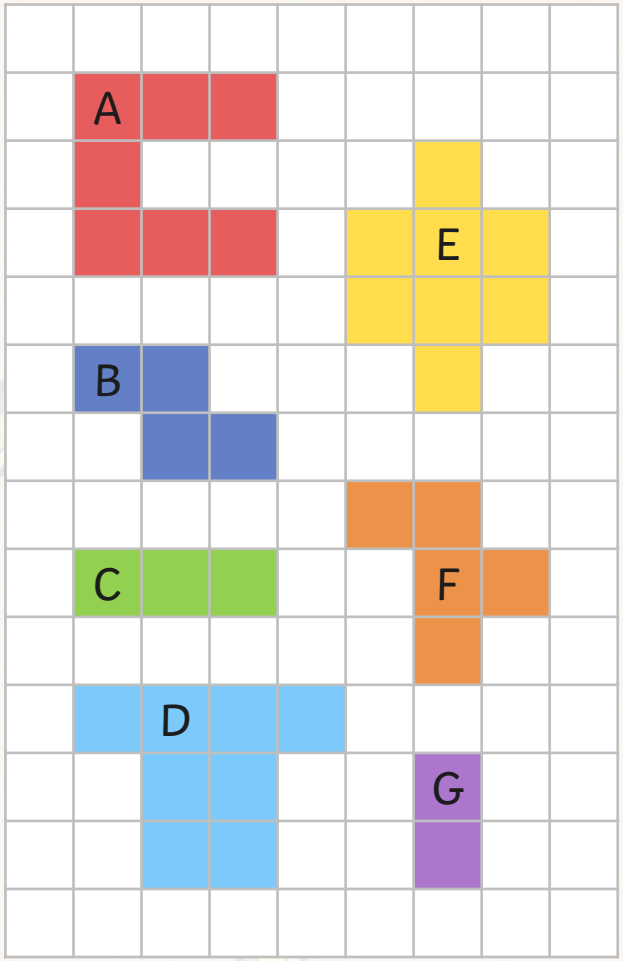
?cm × ?cm = ?cm^2

What are the calculations

Aim

- Find and compare the area of rectilinear shapes by counting squares.

Comparing Area **Diving**

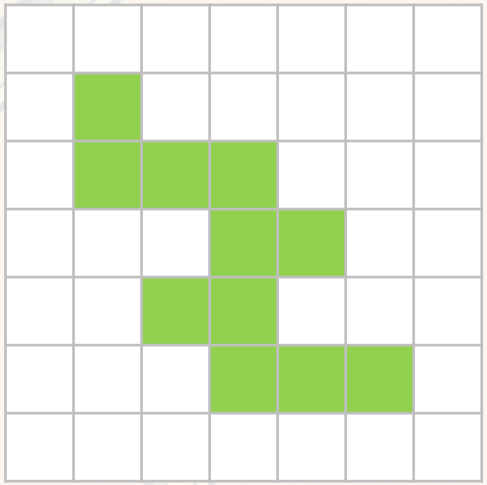
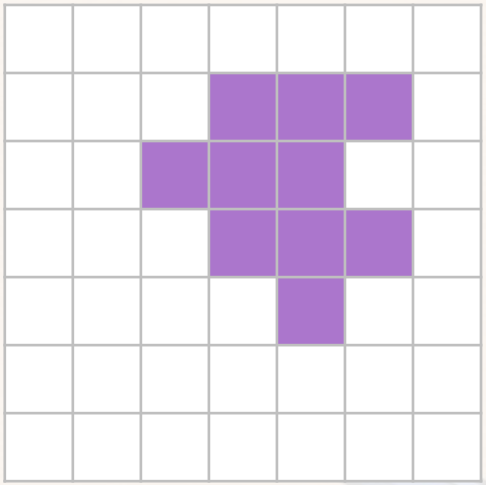


Sort the shapes into the correct column of the table.

Shapes with an Area **Greater** Than 6 Squares	Shapes with an Area **Less** Than 6 Squares

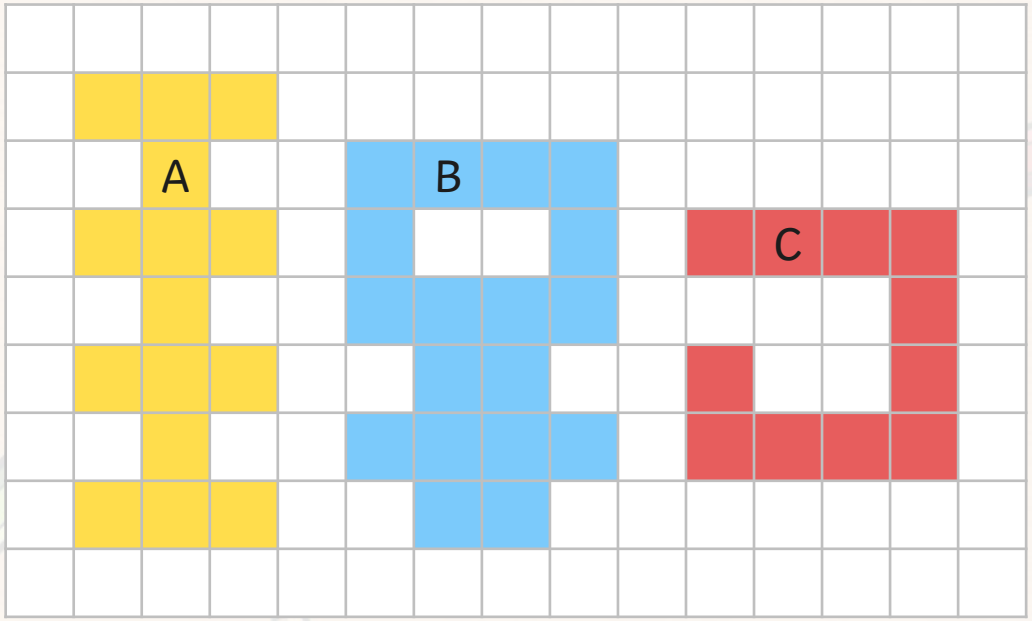
Comparing Area **Diving**

Complete the table. Use the squares to calculate the area of each shape. Compare the areas of the shapes using >, < or =.

Shape 1	Compare Area >, < or =	Shape 2
		

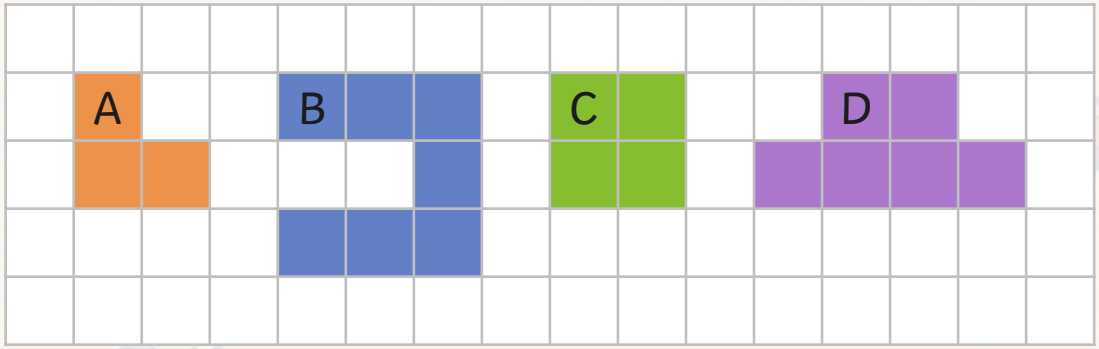
Comparing Area

Diving



Order these shapes from the shape with the smallest area to the shape with the largest area.

Comparing Area | Deeper



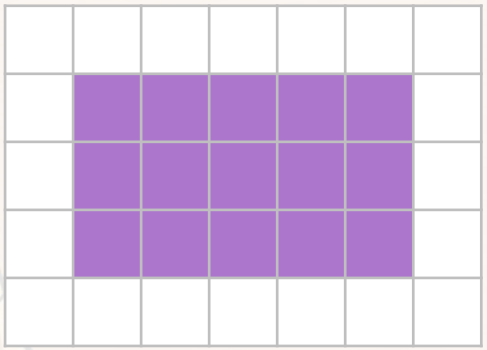
Jessica has been asked to order the shapes from the shape with the smallest area to the shape with the largest area.

She has got confused. Explain her mistake.

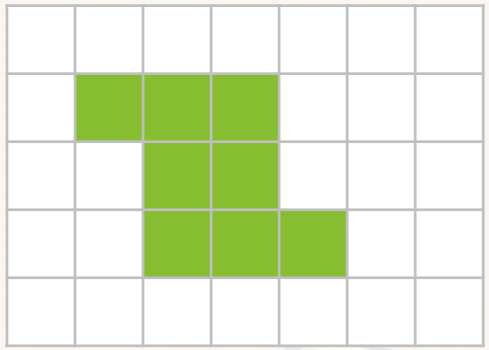
Comparing Area **Deeper**

Josie and Lyle are having a disagreement over the area of their shapes. Read their statements. Who is correct? Explain why.

The area of my shape is double the area of Lyle's shape.



The area of my shape is less than the area of Josie's shape.



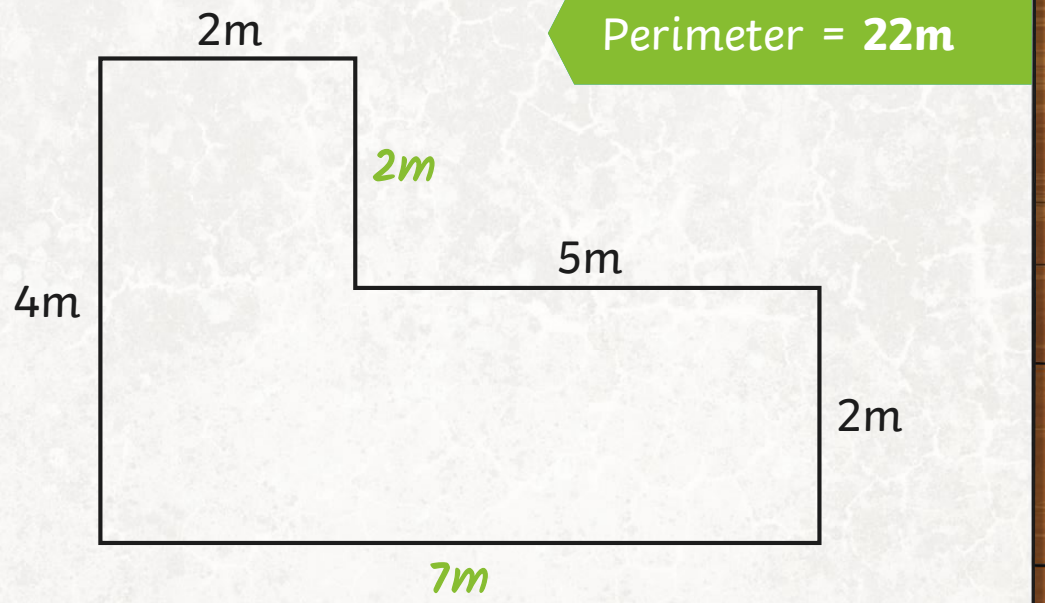
Aim

- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.

Perimeter of Rectilinear Shapes

Diving

Find the missing side lengths and calculate the perimeter of this rectilinear shape.

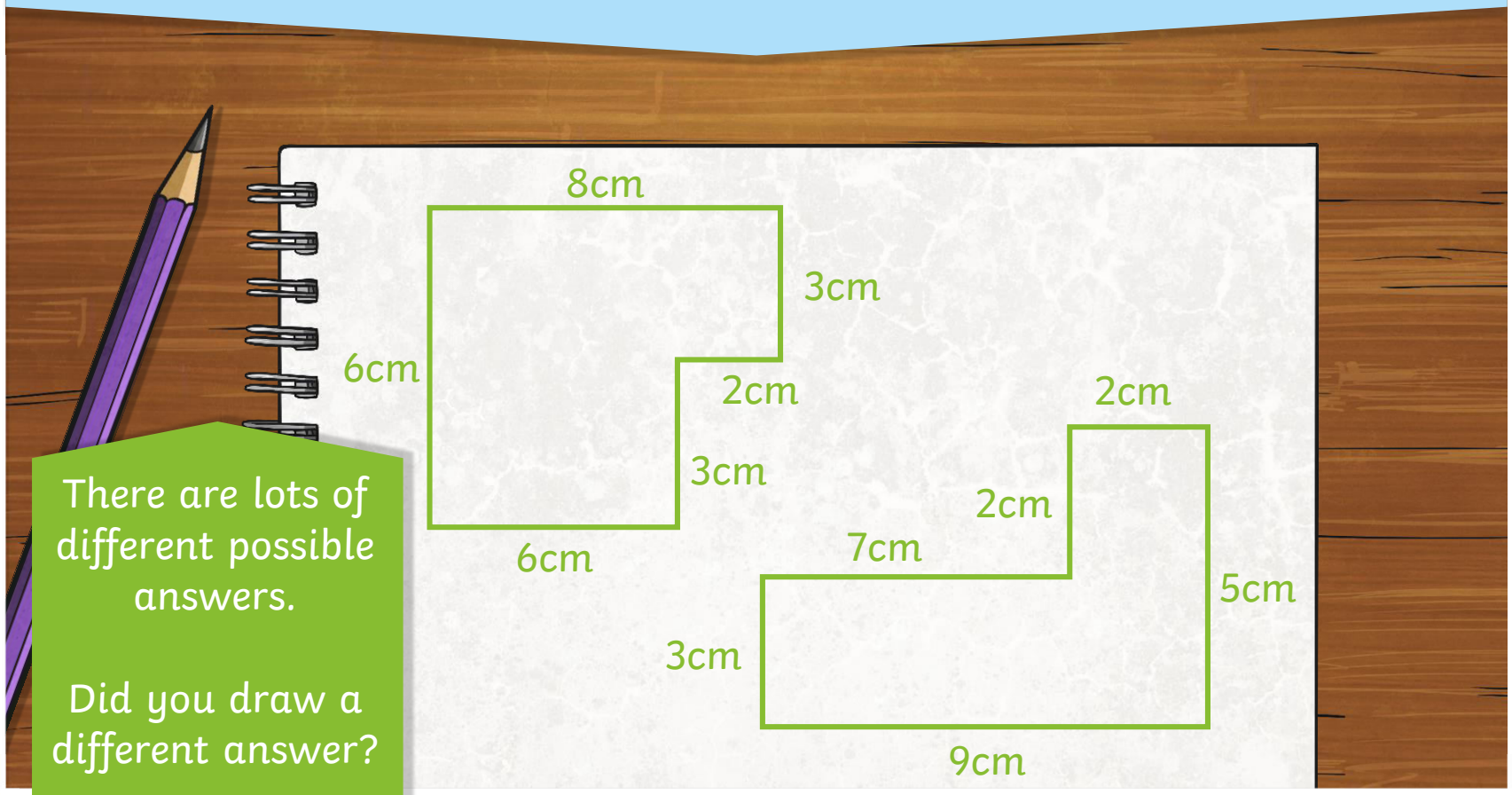


Perimeter = **22m**

Perimeter of Rectilinear Shapes

Diving

Draw two different rectilinear shapes that have a perimeter of 28cm.



There are lots of different possible answers.

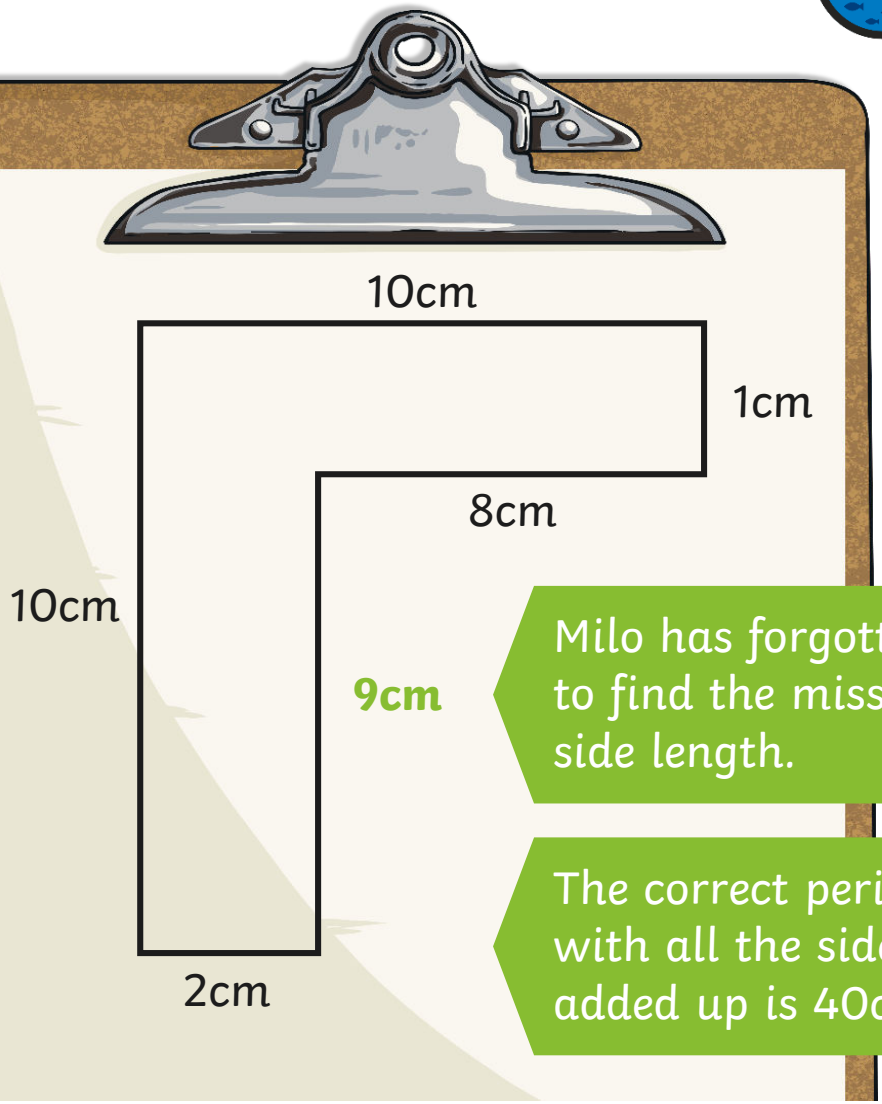
Did you draw a different answer?

Perimeter of Rectilinear Shapes

Deeper

			9			
		1	0			
		1	0			
			8			
			2			
	+		1			
		3	0	c	m	
		1				

Milo has worked out the perimeter of this rectilinear shape. Can you explain his mistake and find the correct answer?



Milo has forgotten to find the missing side length.

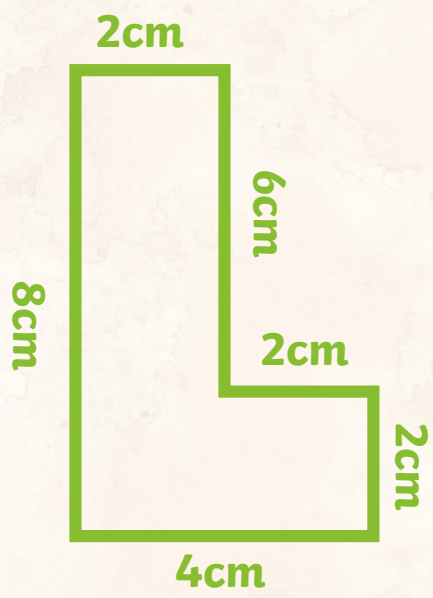
The correct perimeter with all the sides added up is 40cm.

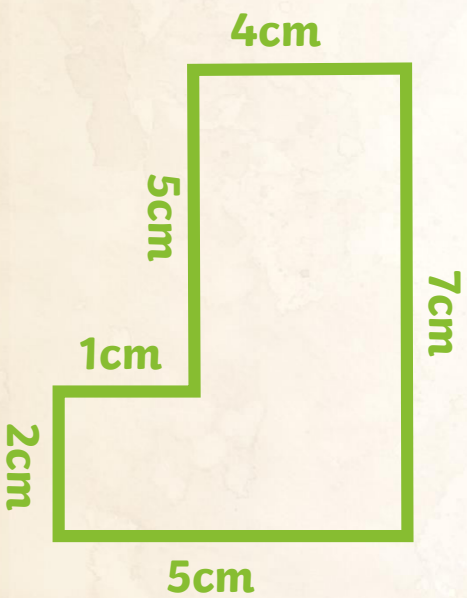
Perimeter of Rectilinear Shapes | Deepest

Can you draw a rectilinear shape, made up of two rectangles, that has a perimeter of 24cm? Find two possible solutions.

Did you find a different answer?

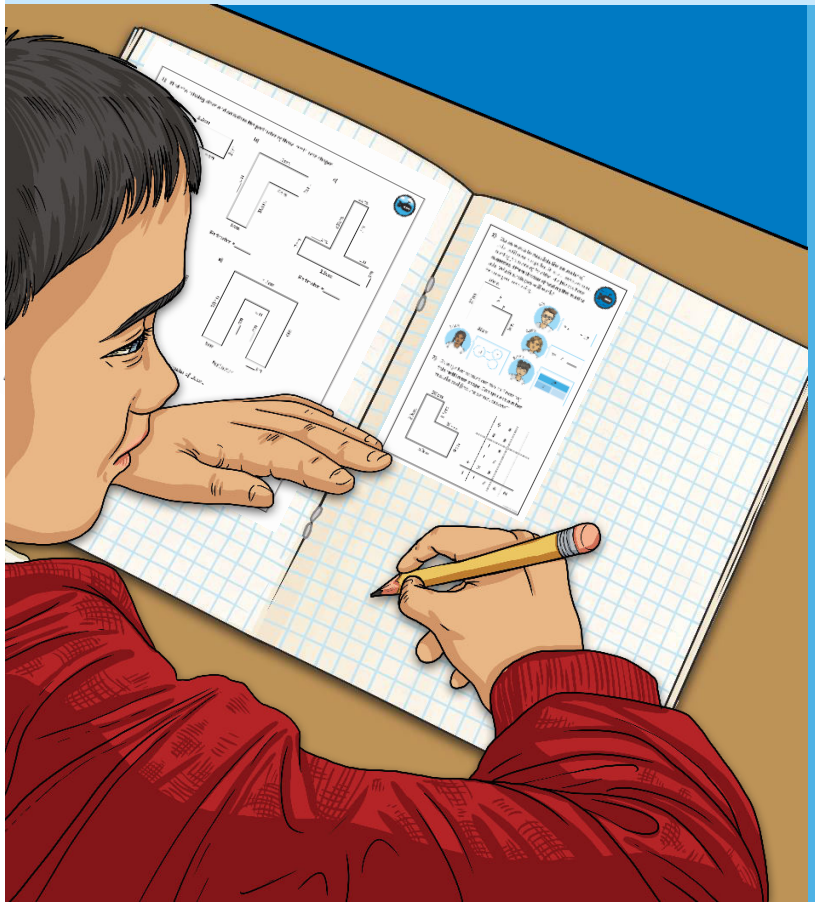
There are many possible answers to this question.
Here are two possible solutions:

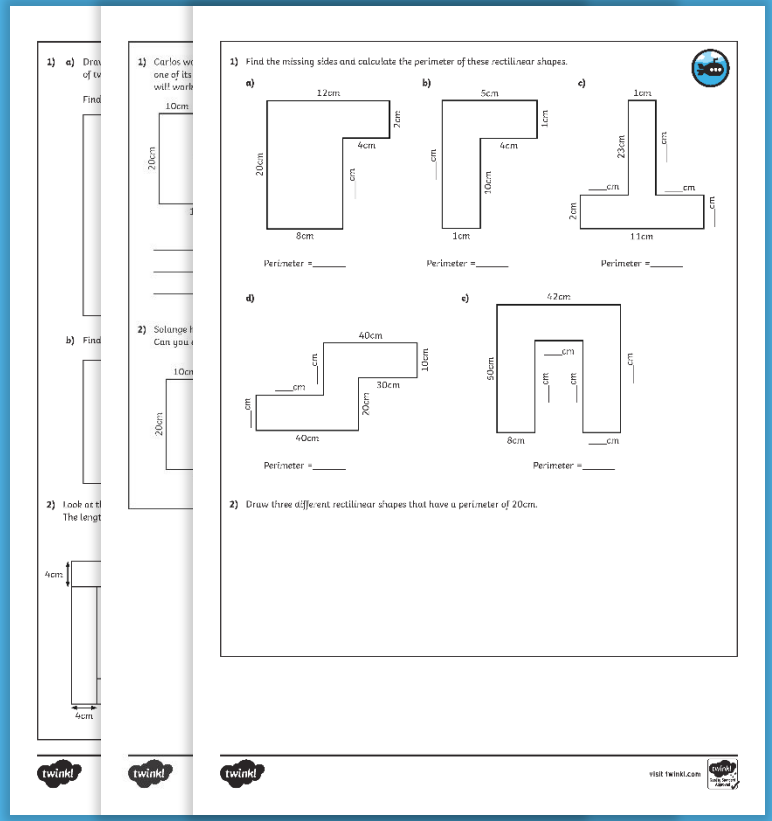




Perimeter of Rectilinear Shapes

Dive in by completing your own activity!





1) Find the missing sides and calculate the perimeter of these rectilinear shapes.

a) 12cm, 7cm, 4cm, 20cm, ___cm, 8cm

Perimeter = _____

b) 5cm, 1cm, 4cm, ___cm, 10cm, 1cm

Perimeter = _____

c) 1cm, 23cm, ___cm, ___cm, 2cm, ___cm, 11cm

Perimeter = _____

d) 40cm, ___cm, 10cm, ___cm, 30cm, ___cm, 20cm, 40cm

Perimeter = _____

e) 42cm, ___cm, ___cm, ___cm, 90cm, ___cm, 8cm

Perimeter = _____

2) Draw three different rectilinear shapes that have a perimeter of 20cm.

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SPAG/Literacy – lesson 2:

Direct Speech **Answers**

Part A

1. Tilda nursed her hand and glared at the stubborn framework. This felt like stalemate.

   "Told you it was broken," Charlie said triumphantly. "The only way you'll ever get through is by kicking the door down." Tilda whirled round and snatched a handful of her brother's T-shirt.

   "Charlie Hacker, you're a genius!"

   "Eh?"

   "Gimme one of your trainers."

   "What? No! They won't fit you."

   "I'm not going to wear it, silly. I'm going to use it to get through the door."

2. Children's own responses, including correctly punctuated direct speech.

Part B

- Put inverted commas around what is said.
- Begin what is said with a capital letter.
- Include the correct punctuation for what is said, inside the inverted commas.
- If the reporting clause comes before the speech, use a comma after the reporting clause. If the reporting clause comes after the speech, use a comma instead of a full stop at the end of the speech.
- Start a new speaker on a new line.

Children's own responses, giving an example for each rule.

Challenge

Children's own responses, including correctly punctuated direct speech.