



Learning Project Week 3 - Infinity and Beyond

Age Range: Year 6

Work can be submitted via TEAMS to your class teacher and feedback will be given.

TEAMS will run from 9:00 - 3:00pm Monday to Friday.

Weekly Maths Tasks (Aim to do 1 per day)	Weekly Reading Tasks (Aim to do 1 per day)																																																																																																									
<ul style="list-style-type: none"> Complete the White Rose Maths tasks at the end of this document - 1 per day. Ensure you watch the video before you complete the task. You can write the answer to the questions in your workbook then your teacher Working on Times Table Rockstars - Can you complete all the set games and challenge somebody in our school? Are you winning in the current Battle of the Bands? Complete some challenges on the 'Numbots' applications on Times Table Rockstars. It is the same login as TTRS. Play on Hit the Button - focus on times tables, division facts and square numbers. Daily arithmetic focus. Login to Purple Mash and complete 2Dos set on specific maths topic. 	<ul style="list-style-type: none"> Complete the English Reading tasks at the end of this document - 1 per day. Read the chapter: The Girl Who Stole an Elephant then complete the tasks for reading, writing, spelling and grammar. Log into Reading Plus and complete your weekly reading comprehension tasks and vocabulary tasks. Site code: rpendea2 Read a chapter from your favourite book and note down any unfamiliar words. Explore the meanings of these words by using a dictionary, reading around the sentence or finding synonyms and antonyms for those new words. Watch Newsround with your family and discuss what is happening in the wider world. Listen to Miss Harris reading a chapter a day of 'The Island at the End of Everything'. Can you write a prediction for what will happen in the next chapter? Can you make notes to remind you of what happens in each chapter? 																																																																																																									
Weekly Spelling Tasks (Aim to do 1 per day)	Weekly Writing Tasks (Aim to do 1 per day)																																																																																																									
<ul style="list-style-type: none"> Complete the spelling section of the English Reading Tasks below. Practise the Year 5/6 Common Exception Words below by writing them in different ways or ask someone to test you. Practise your spelling on Spelling Frame. <div style="background-color: #e91e63; color: white; padding: 5px; text-align: center; margin-top: 10px;"> Year 5 and 6 Statutory Spellings </div> <table style="width: 100%; font-size: small; margin-top: 5px;"> <tr><td>accommodate</td><td>category</td><td>determined</td><td>forty</td><td>marvellous</td><td>programme</td><td>soldier</td></tr> <tr><td>accompany</td><td>cemetery</td><td>develop</td><td>frequently</td><td>mischievous</td><td>pronunciation</td><td>stomach</td></tr> <tr><td>according</td><td>committee</td><td>dictionary</td><td>government</td><td>muscle</td><td>queue</td><td>sufficient</td></tr> <tr><td>achieve</td><td>communicate</td><td>disastrous</td><td>guarantee</td><td>necessary</td><td>recognise</td><td>suggest</td></tr> <tr><td>aggressive</td><td>community</td><td>embarrass</td><td>harass</td><td>neighbour</td><td>recommend</td><td>symbol</td></tr> <tr><td>amateur</td><td>competition</td><td>environment</td><td>hindrance</td><td>nuisance</td><td>relevant</td><td>system</td></tr> <tr><td>ancient</td><td>conscience</td><td>equipment</td><td>identity</td><td>occupy</td><td>restaurant</td><td>temperature</td></tr> <tr><td>apparent</td><td>conscious</td><td>equipped</td><td>immediate</td><td>occur</td><td>rhyme</td><td>thorough</td></tr> <tr><td>appreciate</td><td>controversy</td><td>especially</td><td>immediately</td><td>opportunity</td><td>rhythm</td><td>twelfth</td></tr> <tr><td>attached</td><td>convenience</td><td>exaggerate</td><td>individual</td><td>parliament</td><td>sacrifice</td><td>variety</td></tr> <tr><td>available</td><td>correspond</td><td>excellent</td><td>interfere</td><td>persuade</td><td>secretary</td><td>vegetable</td></tr> <tr><td>average</td><td>criticise</td><td>existence</td><td>interrupt</td><td>physical</td><td>shoulder</td><td>vehicle</td></tr> <tr><td>awkward</td><td>curiosity</td><td>explanation</td><td>language</td><td>prejudice</td><td>signature</td><td>yacht</td></tr> <tr><td>bargain</td><td>definite</td><td>familiar</td><td>leisure</td><td>privilege</td><td>sincere</td><td></td></tr> <tr><td>bruise</td><td>desperate</td><td>foreign</td><td>lightning</td><td>profession</td><td>sincerely</td><td></td></tr> </table>	accommodate	category	determined	forty	marvellous	programme	soldier	accompany	cemetery	develop	frequently	mischievous	pronunciation	stomach	according	committee	dictionary	government	muscle	queue	sufficient	achieve	communicate	disastrous	guarantee	necessary	recognise	suggest	aggressive	community	embarrass	harass	neighbour	recommend	symbol	amateur	competition	environment	hindrance	nuisance	relevant	system	ancient	conscience	equipment	identity	occupy	restaurant	temperature	apparent	conscious	equipped	immediate	occur	rhyme	thorough	appreciate	controversy	especially	immediately	opportunity	rhythm	twelfth	attached	convenience	exaggerate	individual	parliament	sacrifice	variety	available	correspond	excellent	interfere	persuade	secretary	vegetable	average	criticise	existence	interrupt	physical	shoulder	vehicle	awkward	curiosity	explanation	language	prejudice	signature	yacht	bargain	definite	familiar	leisure	privilege	sincere		bruise	desperate	foreign	lightning	profession	sincerely		<ul style="list-style-type: none"> Write a news report about the first man on the moon using the template set on Purple Mash. Create a planet profile on a planet of your choice using the template on Purple Mash. Research the movement of the Earth and record your findings on the template on Purple Mash. If you could live on any planet which one would it be and why? Remember to research your chosen planet to justify your answer. Write this in your home learning exercise book. Have you took part in a writing master class_yet? You'll need to create a free parent account to access this great library.
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The project this week aims to provide opportunities for your child to gain a better understanding of the human body which links to our previous science topic. Learning may focus on the circulatory system and a health body, including diet, exercise and lifestyle.

- **Let's Wonder:**

Talk and research together: What is Earth's place in the Solar System?

Use BBC Bitesize to investigate the solar system

<https://www.bbc.co.uk/bitesize/topics/zdrrrd2p>. Once you have researched the Solar System create a solar system scene of [Purple Mash](#) to write about your findings.



- **Let's Create:**

Create an outer space galaxy using any art resources you can find. A simple idea is to find a dark piece of paper and spray paint on it using a spray bottle or paint brush to get the galaxy effect. Other ideas can be found on this website: <https://artsycraftsymom.com/10-outer-space-art-ideas-that-are-out-of-this-world/>

Take a look at our artist we began to look at Peter Thorpe!



- **Be Active:**

Take part in PE with Joe on Joe Wick's YouTube channel

<https://www.youtube.com/channel/UCAxW1XT0iEJo0TYIRfn6rYQ>.

Fancy a dance? There are many dance videos they could try. [Dance](#). Maybe try some [Yoga](#).

Consider how astronauts in space may exercise. Why do they need to exercise? What challenges do they face when exercising? Find out more [here](#).



- **Time to Talk:**

Perhaps they could play a board game, FaceTime/WhatsApp call a member of their family they have not seen this week, enjoy a family indoor picnic or have a family dinner. Discuss the benefits and challenges of lockdown. How would that compare to astronauts completing a mission?



- **Understanding Others and Appreciating Differences:**

The International Space Station is tied together by a complex set of rules and ideas from 15 different countries. Astronauts from all over the world live and work together for 6 months on the ISS. How do the different space agencies work together? Do some have different rules? What language is spoken on the ISS? Do different space agencies from around the world have different jobs to do? See what you can find out on

https://www.nasa.gov/audience/forstudents/k-4/more_to_explore/International-Space-Station.html



- **Reflect:**

Scientists want to send humans to Mars in 2030 and predict that we will live there in the future. What do you think life would be like on Mars? What would be different? What would you miss from Earth? Would you go if you had the chance?



Year 5 and 6 Statutory Spellings

accommodate	category	determined	forty	marvellous	programme	soldier
accompany	cemetery	develop	frequently	mischievous	pronunciation	stomach
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Year 6 Home Learning - Summer Week 1 - English: Chapter One (The Girl Who Stole an Elephant)

Read the chapter below then complete the tasks. Remember to send your work to Miss Harris on Teams so she can give you feedback.



Chapter One

Chaya looked at the bronze spear pointing at her neck.

“Stop right there,” said the guard.

Chaya took a step back and held up her hands. The linen pouch under her blouse clinked. The chatter of the crowds floated up from the promenade below, where the King’s annual feast was taking place.

“What are you doing here, girl?” The guard waved the spear at her. From below them, the melody of the veenas drifted up. The musical show was starting.

Chaya shrugged, the pouch pressing

against her chest. She rubbed her palms down her skirt and tried to keep her voice level. “I’m just looking around.”

Her voice brought two more guards to the top of the stone steps cut into the hill. This was how the royal palace was built – a network of buildings at the top of the mountain, every rock and ledge forming courtyards and pools for the royal household while they ruled from above.

“You’re not allowed here,” the guard said to Chaya. “You should be down below, enjoying the food and the festivities.”

Not Chaya. She much preferred breaking into the Queen’s rooms and stealing her jewels. There was a particularly nice blue sapphire in her pouch at that moment.

“Well?” The man jabbed his spear towards her. “What have you got to say for yourself?”

“I wanted to get a little closer to the palace. See what it’s like. It looks so pretty from down there.” She pointed in the direction of her village and made her face go all wistful.

The guard sighed. “Fine. Just make sure you don’t do it again.” He put his spear down. “Anything past the lion’s entrance is strictly out of bounds

to the public.”

Chaya looked back and nodded meekly, as if noticing the giant lion statue for the first time, even though it could be seen from villages miles away. The stone stairway carved between the crouching lion’s paws led into the complex of buildings that made up the inner palace.

“Come on now.” The guard gripped her arm, making her wince. He pulled her to the cobbled walkway sloping downwards towards the celebrations below. “I don’t want to see you here again.”

The Queen’s jewels jangled in her pouch. There were sapphires, tourmalines and star rubies, set in heavy, shiny gold. How many jewels did one person need anyway? And these were just the ones from the drawer in the rosewood table by the bed. Pity she’d had to leave so quickly when she heard voices outside the door. And then to be seen when she was halfway down to the promenade was just bad luck.

She shrugged herself free of the guard and set off, her arm stinging from where his fingers had pinched her.

In spite of everything Chaya found herself gasping at the view from up there. The kingdom of Serendib spread out around her as far as the eye could see, thick

green forests and strips of silver rivers, with the King's City below and clusters of little villages beyond.

But she wasn't ready to leave yet. Chaya paused near a tamarind tree and pretended to look up at the monkeys on it. Dappled sunshine prickled her face as she looked at the guard out of the corner of her eye.

He had stopped walking but was still watching her. She heard him swear loudly. "What are you doing now? Get out, girl, before I come and give you a thrashing."

The sensible thing to do was to get out of there as fast as she could. But the Queen's rooms were calling out to her. It was as if she could hear their whisper, right there in the warm sun. The softness of the velvet rugs, the gauzy bed curtains dancing in the breeze, and the promise of more riches within the ebony and teak cabinets.

Suddenly a commotion came from above her, near the Queen's quarters. She heard shouting and the sound of people running.

Chaya thought back quickly. Had she forgotten to close the drawer in her rush?

She sneaked a quick look over her shoulder to see a figure running down the cobbled path behind her.

It really was time to get out.

Chaya carried on walking as casually as she could. Her heart hammered at the sounds behind her.

She was just passing under the stone lion when she heard a yell.

"Hey, you!"

Chaya sped up, her bare feet scorched by the cobbles.

"Hey! I need to talk to you, girl."

She had to get away fast or everything would be over. Her feet slapped harder on the path and her breath came out in puffs.

There was a scuffle of hurrying feet behind her.

Chaya hitched up her skirt and raced down the path. The sound of thundering feet chased her; heavy sandals pounding on cobbles.

She pulled up with a jolt when she saw a row of guards racing towards her from below. She turned and ran blindly sideways, springing up some steps into the Queen's prayer hall and threading through its granite columns. Spears clattered against columns as the guards tramped after her. She got to the far side of the hall and plunged down into the foliage, thrashing through it and down the steps into the formal gardens.

She found herself close to the promenade where the

feast was taking place. The smell of frying sweetmeats meant the food tables were just round the corner.

Chaya skidded to a halt in front of two boys stuffing rice cakes down their shirts. They looked up in alarm at her sudden arrival, and took off in different directions.

Leaping away from them she pitched into a crowd of dancers and musicians. The revellers were oblivious to the unfolding drama, and cymbals clashed and bare-torsoed dancers jumped and twirled to the beat of drums. She ran through the band, clapping her hands over her ears to escape the shrill sounds of the swaying flutes.

"Stop her!" came a shout. "*Stop her!*" The dancers paused, one by one, and some of the music petered out. People gawped, looking behind Chaya towards the guards chasing her. "*The girl! Stop the girl!*"

A man in the crowd lunged at Chaya but she slipped out of his grasp and ran towards the gates of the royal complex. Coconut-flower decorations tied along strings came crashing down as she ran through them, wrapping themselves around her like a trap. She tore them off and kept running.

Elephants from the temple stood on the lawn ahead of her, draped in their mirror-studded regalia, ready

She'd lost them.

Chaya shimmied up the tree, hands scratching against the rough bark. She settled herself in one of the high branches and picked out the coconut blossoms stuck in her hair. Lifting her linen pouch over her neck, she dropped the jewels into her lap. They sparkled in shards of bright blue, green and pink against the grey of her skirt.

It had been a huge risk. Her boldest robbery to date. And yet she'd pulled it off.

She picked a *jambu* fruit from a branch nearby and crunched into its juicy pink flesh, peering through the leaves at the royal compound in the distance.

It was pandemonium down there. The crowds were scattered and panicked, clusters of people moving in different directions. The King, standing out in his gold-encrusted waistcoat, had come down from the dais and was roaring at his staff. The Queen and her procession of ladies were being guided out of the promenade up to the palace. The mahouts on the green were trying desperately to calm their confused charges and stop them running amok. In the middle of it all, Ananda lifted up his majestic head and trumpeted loudly into the blue, blue sky.

Reading

Before reading:

Predict. What do you think the story might be about based on the name of it. How many *different* ways might a girl steal an Elephant?

During reading:

Write a list - the names of every new character you meet.

After reading:

Which character do you think is the most important and why? Write 4-5 full sentences saying why.

Writing

Write two paragraphs to describe the palace when Chaya stole the jewels. Use this space to jot down some ideas.

- Around 15-20 lines
- Describe 4-5 different parts of the palace, in detail
- Full stops and capital letters

Grammar

Insert one comma in this sentence.

Every night my Dad and my brother take the dog for a walk.

Circle the word(s) that show(s) the sentence is a command.

To see pictures of the rugby match, [click here](#).

Circle the three adjectives in this sentence.

He made his way up the cobbled street, striding like the bold and determined man he was.

Complete the sentence with a relative clause.

His sister, _____, is learning to speak Polish.

Rewrite the underlined verbs in the simple past.

The sky begins to look darker as the storm approaches.

Spelling

Practise each word. Choose two and write their definitions.

Choose two to write in sentences.

accommodate
according
aggressive
ancient
appreciate

accompany
achieve
amateur
apparent
attached

Below are some suggested timings for each lesson:

Reading: 30 minutes (this includes time to re-read, look up unknown words and ask questions)

Writing - 45 minutes

Grammar - 5 minutes

Spelling - 10 minutes

How parents, carers or siblings can help:

- Read the extract aloud with you.
- Gather all the exciting and difficult words you want to find out about or use in your writing and put them on display to support your amazing writing.
- Help with ideas for planning your writing.
- Write a story at the same time as you. You could then compare your stories and give each other feedback.

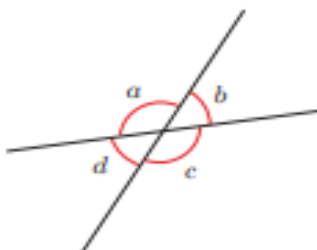
Remember:

Be Kind, Be Specific, Be Helpful

Vertically opposite angles



- 1 The diagram shows four angles formed by two straight lines.



- a) Measure the sizes of the angles.

$a =$ $b =$ $c =$ $d =$

- b) What is the total of angles a and b ?

Explain why.

Do any other pairs of angles have this same total?

- c) Angles a and c are vertically opposite angles.

What do you notice about the sizes of angles a and c ?

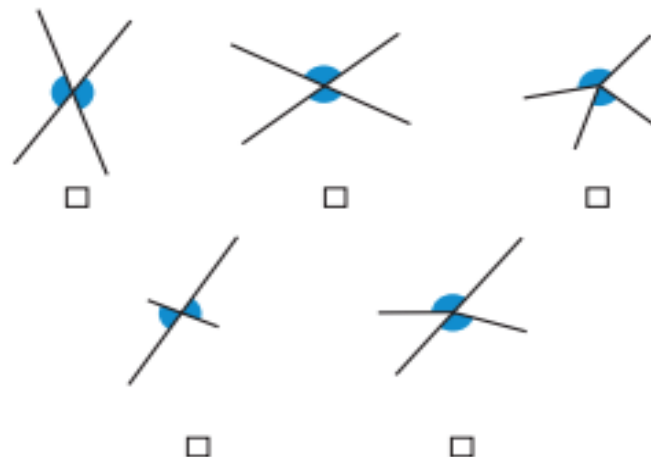
- d) Angles b and d are also vertically opposite angles.

What do you notice about the sizes of angles b and d ?

- e) Complete the sentence.

Vertically opposite angles _____

- 2 Tick the pairs of angles that are vertically opposite.

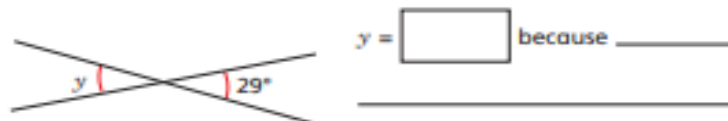


Compare answers with a partner.

- 3 Work out the sizes of the unknown angles.

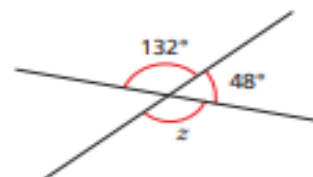
Give reasons for your answers.

- a)



$y =$ because _____

- b)



$z =$ because _____

- 4 Annie is working out the size of angle f .



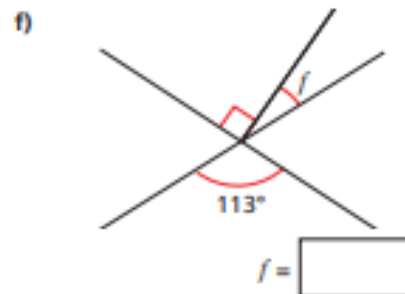
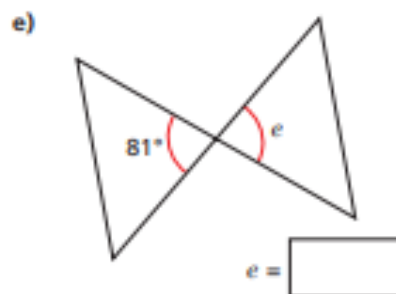
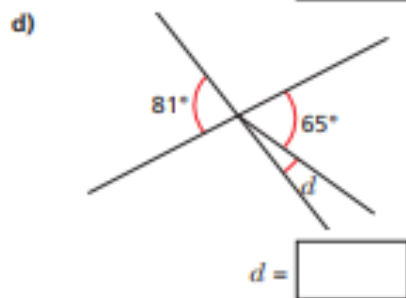
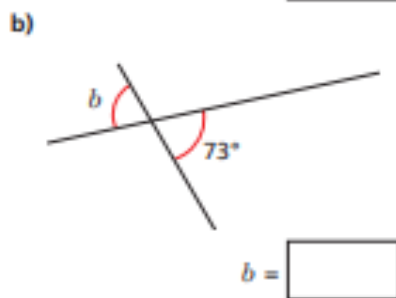
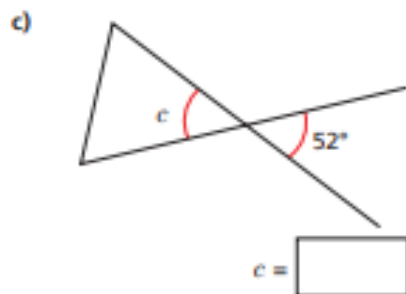
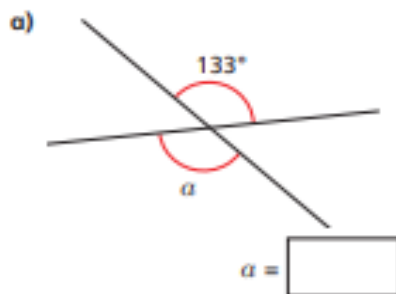
Angle f is equal to 79° because vertically opposite angles are equal.



Do you agree with Annie? _____

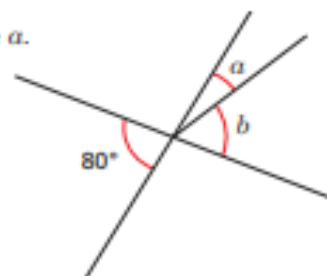
Explain your answer.

- 5 Work out the unknown angles.



Talk about your reasons with a partner.

- 6 Angle b is three times the size of angle a .

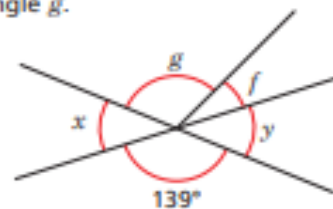


Work out the sizes of angles a and b .

$a = \square$ $b = \square$

- 7 Angle f is one quarter of the size of angle g .

Angle f is 28° .



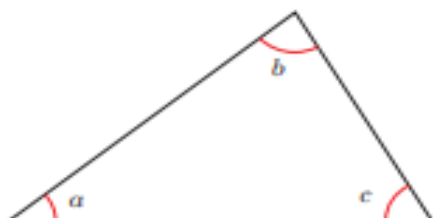
Are angles x and y vertically opposite? _____

Explain your answer.

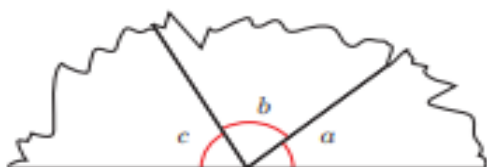
Angles in a triangle



1 Here is a triangle.



a) The three vertices are torn off the triangle and arranged on a straight line.



What is the sum of the three angles?

How do you know?

b) Now measure the sizes of angles a , b and c in the triangle.

$a =$

$b =$

$c =$

c) What is the total of angles a , b and c ?

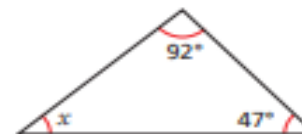
d) Complete the sentence.

Angles in a triangle _____

2 Work out the sizes of the unknown angles.

Give reasons for your answers.

a)



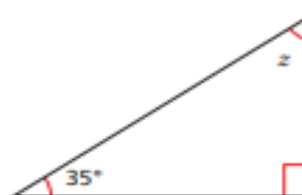
$x =$ because _____

b)



$y =$ because _____

c)



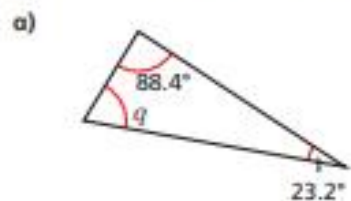
$z =$ because _____

d)



$w =$ because _____

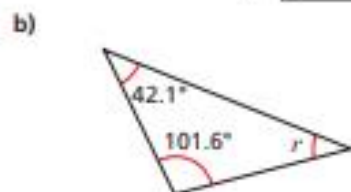
3 Work out the unknown angles.



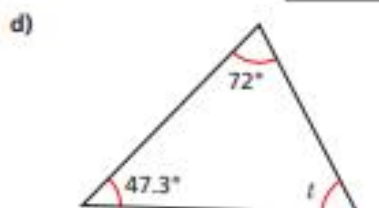
$q =$



$s =$



$r =$



$t =$

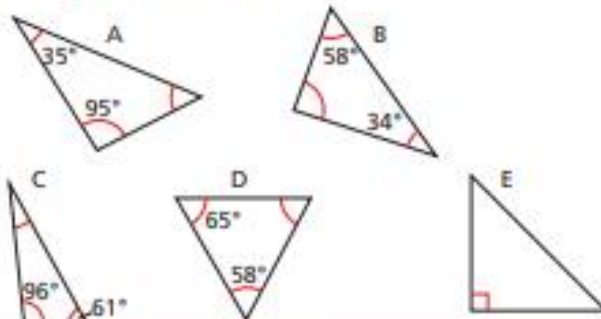
Discuss your reasons with a partner.

4 a) Two angles in a triangle are 42° and 57° .
What is the size of the third angle?

b) Two of the angles in a triangle are 12° .
What is the size of the third angle?

c) One of the angles in a triangle is 38° . Another angle is twice the size of the first angle.
What is the size of the third angle?

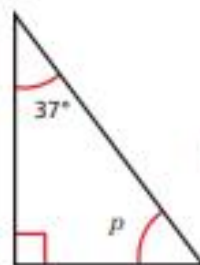
5 Sort the triangles into the table.



0 acute angles	1 acute angle	2 acute angles	3 acute angles

Are any of the columns empty? Why?

6



$p = 143^\circ$ because angles in a triangle sum to 180° and $180 - 37 = 143$



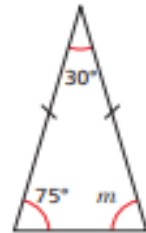
Do you agree with Ron? _____

Explain your answer.

Angles in a triangle – special cases



1 Here is a triangle.



a) What type of triangle is it?

How do you know?

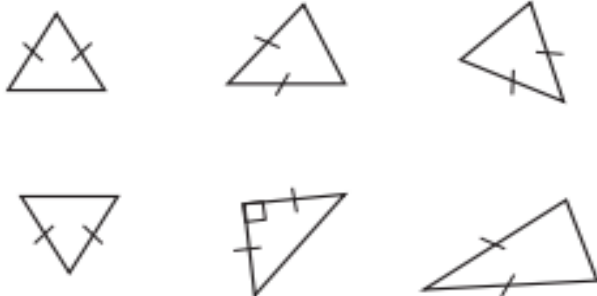
b) Work out the size of angle m .

c) What do you notice?

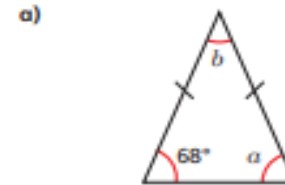
d) Complete the sentence to describe the angles in an isosceles triangle.

In an isosceles triangle _____

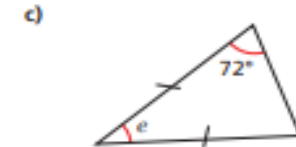
2 Identify and label the angles that will be equal in each triangle.



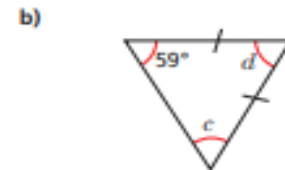
3 Work out the sizes of the unknown angles.



$a =$ $b =$



$e =$



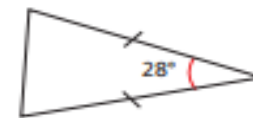
$c =$ $d =$



$f =$

Talk about your reasons with a partner.

4 Dexter is working out the unknown angles in triangles.



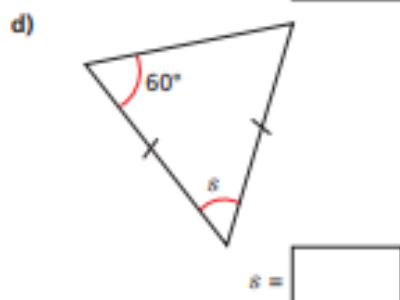
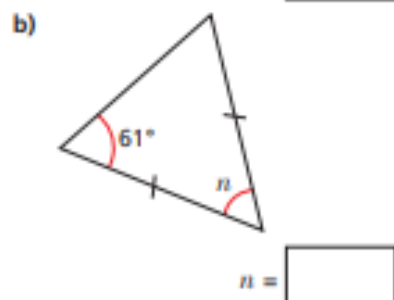
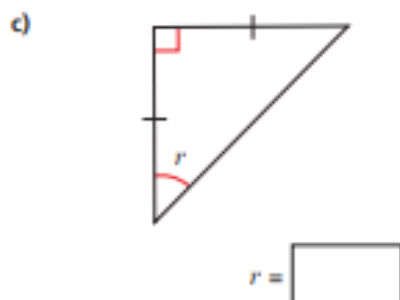
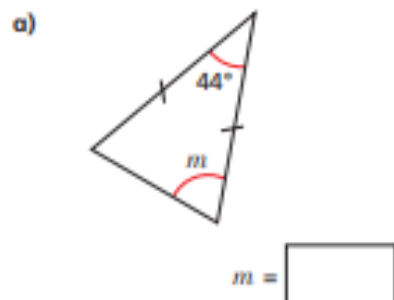
I can't work out either of the missing angles because I don't have enough information.



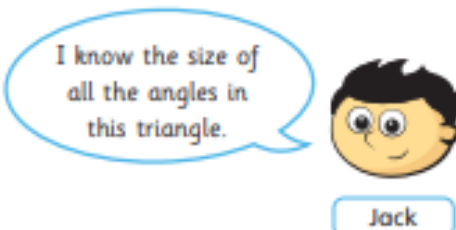
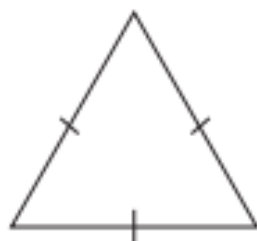
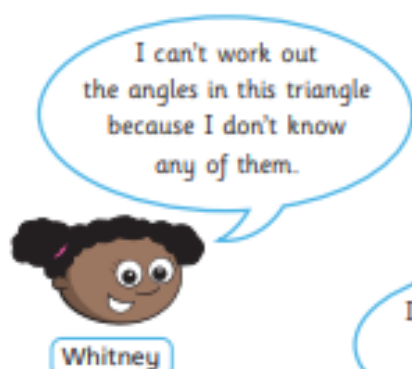
Do you agree with Dexter? _____

Explain your answer.

5 Work out the sizes of the unknown angles.



6 Whitney and Jack are working out the angles in this triangle.



Who do you agree with? _____

Talk about it with a partner.

7 Are the statements true or false?

- a) Every isosceles triangle is equilateral. _____
- b) Every equilateral triangle is isosceles. _____
- c) A right-angled triangle can be equilateral. _____
- d) A right-angled triangle can be isosceles. _____

Explain your answers to a partner.

8 Two angles in a triangle are 43° and 74° .

Is the triangle isosceles? _____

Show your workings.

9 One angle in an isosceles triangle is 29° .

What could the other angles be? Give two possible answers.

10 Angle b is twice the size of angle a .

Work out the size of angle c .



Year 6 Home Learning - Maths: Angles in a triangle (Missing angles) - Thursday 23rd April 2020

Please watch the video first: <https://whiterosemaths.com/homelearning/year-6/>



Angles in a triangle – missing angles

1 Match each diagram to the correct rule.



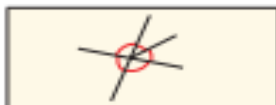
Angles on a straight line sum to 180°



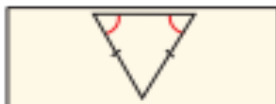
Angles around a point sum to 360°



Angles in a triangle sum to 180°



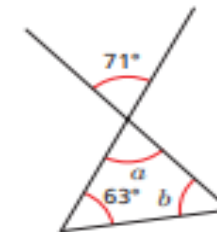
In an isosceles triangle, two angles are equal



Vertically opposite angles are equal

2 Work out the sizes of the unknown angles.
Give reasons for each stage of your working.

a)



$a = \square$ because _____

$b = \square$ because _____

b)

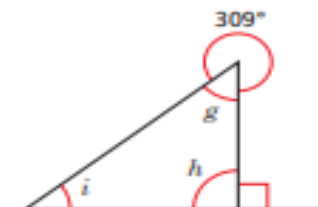


$d = \square$ because _____

$e = \square$ because _____

$f = \square$ because _____

c)

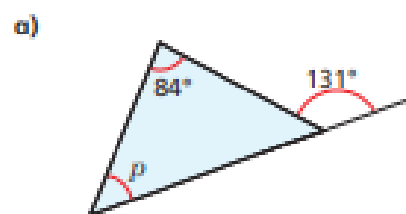


$g = \square$ because _____

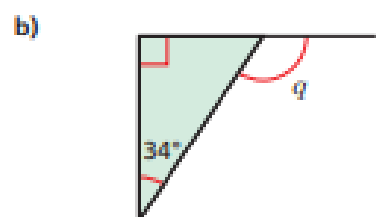
$h = \square$ because _____

$i = \square$ because _____

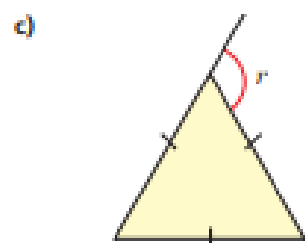
3 Work out the sizes of the angles marked with letters.



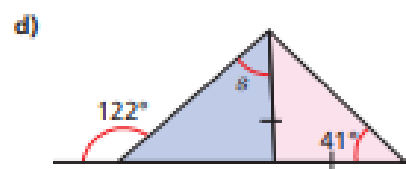
$p = \square$



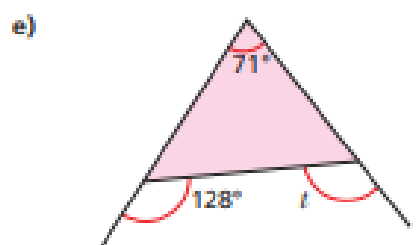
$q = \square$



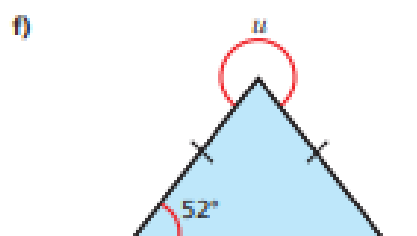
$r = \square$



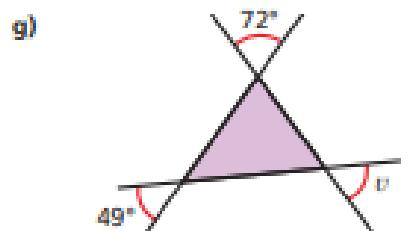
$s = \square$



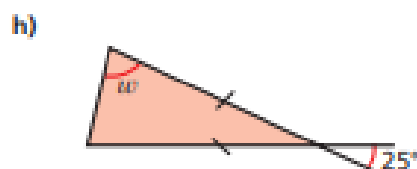
$t = \square$



$u = \square$

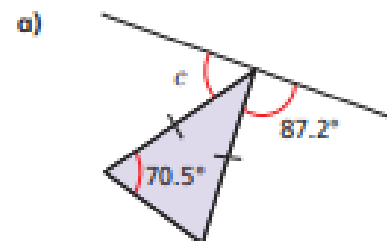


$v = \square$

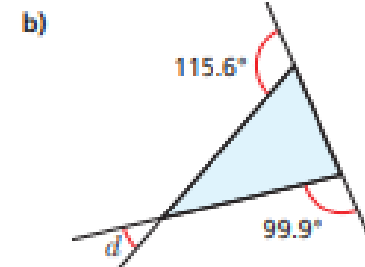


$w = \square$

4 Work out the sizes of the unknown angles.

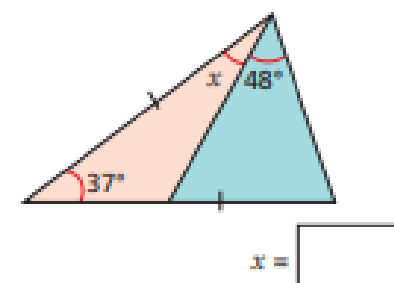


$c = \square$

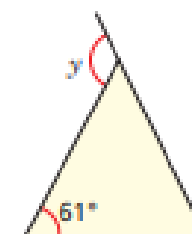


$d = \square$

5 Work out the size of angle x .



6 Here is an isosceles triangle. Find two possible sizes of angle y .

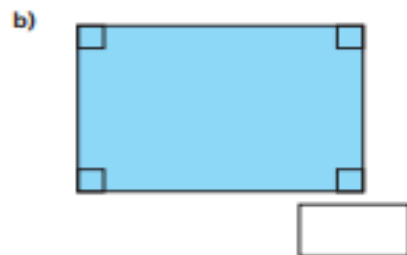
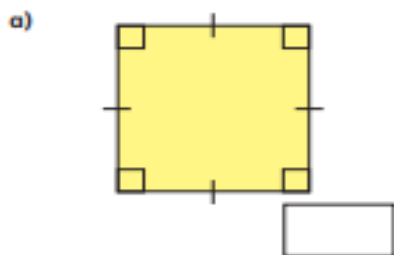


$y = \square$ or \square



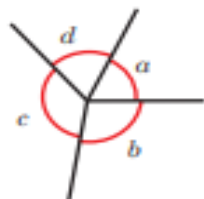
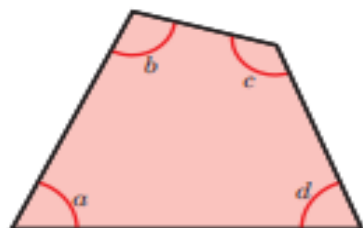
Angles in special quadrilaterals

1 Work out the sum of the angles in each shape.



What do you notice?

2 The diagrams show the four vertices of a quadrilateral arranged around a point.

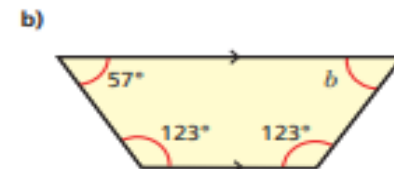
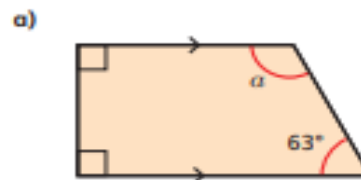


What do the diagrams illustrate about the sum of the angles in a quadrilateral?

Complete the sentence.

Angles in a quadrilateral _____

3 Work out the size of the unknown angle in each trapezium.

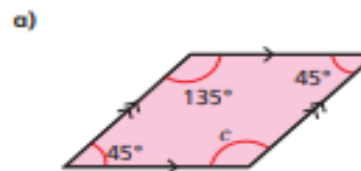


$a =$

$b =$

c) What is the same and what is different about the trapeziums?

4 Work out the sizes of the unknown angles.



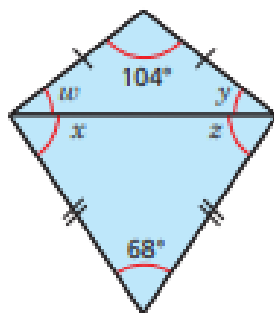
$c =$

$d =$

c) What do you notice about opposite angles in a parallelogram?

5 Two isosceles triangles are joined to form a kite.

a) Work out the sizes of the unknown angles.



$w =$ $y =$ $x =$ $z =$

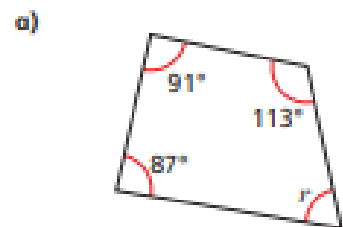
b) Work out $w + x$.

c) Work out $y + z$.

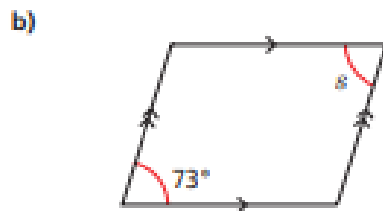
What do you notice? Talk about it with a partner.



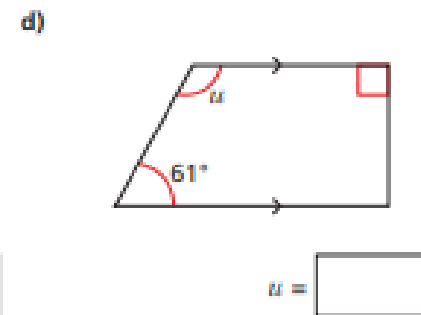
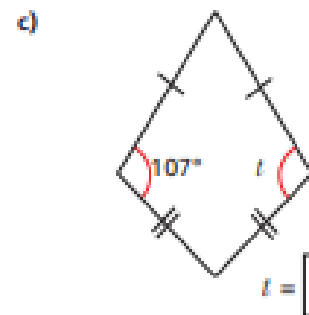
6 Work out the sizes of the unknown angles.



$r =$



$s =$



Compare your reasoning with a partner.

7 Teddy is drawing a quadrilateral.

My quadrilateral has exactly three right-angles.



Is Teddy's quadrilateral possible? _____

Explain your answer.
