Maths Revision

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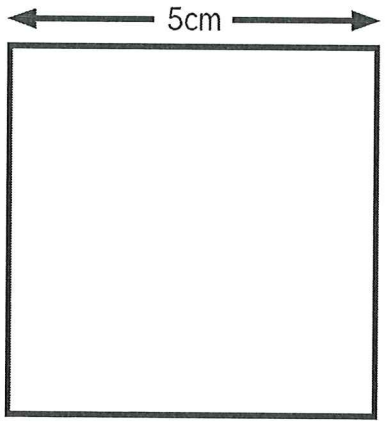


Number and Place Value

Counting

Count forwards and backwards in 4, 6, 7, 8, 9, 25, 50, steps of powers of 10 (10, 100, 1000, ...)

1. Continue the sequences:

   7, 14, 21, 28, 35, 42, _____, _____, _____, _____, _____, _____,

   625, 600, 575, 550, 525, _____, _____, _____, _____, _____, _____,

   57 382, 67 382, 77 382, 87 382, _____, _____, _____, _____, _____, _____,

2. Find 10, 100 or 1000 more or less than a given number

   What is 100 less than 1902? What is 1000 more than 3249?

   _____ _____

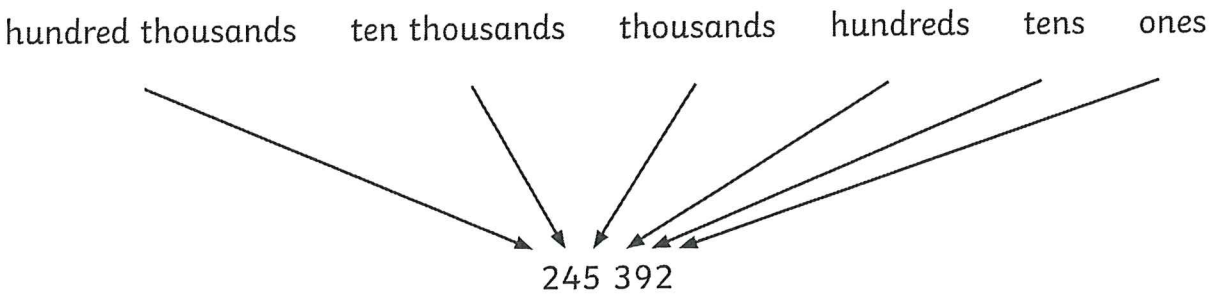
3. Count forwards and backwards through zero

   Continue the sequence:

   6, 5, 4, 3, 2, 1, 0, -1, -2, -3 _____, _____, _____, _____, _____, _____.

Place Value

Recognise the place value of each digit in up to four-digit numbers



4. Underline the thousands digit in 2769.

   Underline the hundred thousands digit in 347 053.

   Underline the tens digit in 209 740.

Compare and Order Numbers

Compare using <, > or =

5. Write a number so that each sentence makes sense:

   141 141 > _____

   144 114 = _____

   501 243 < _____

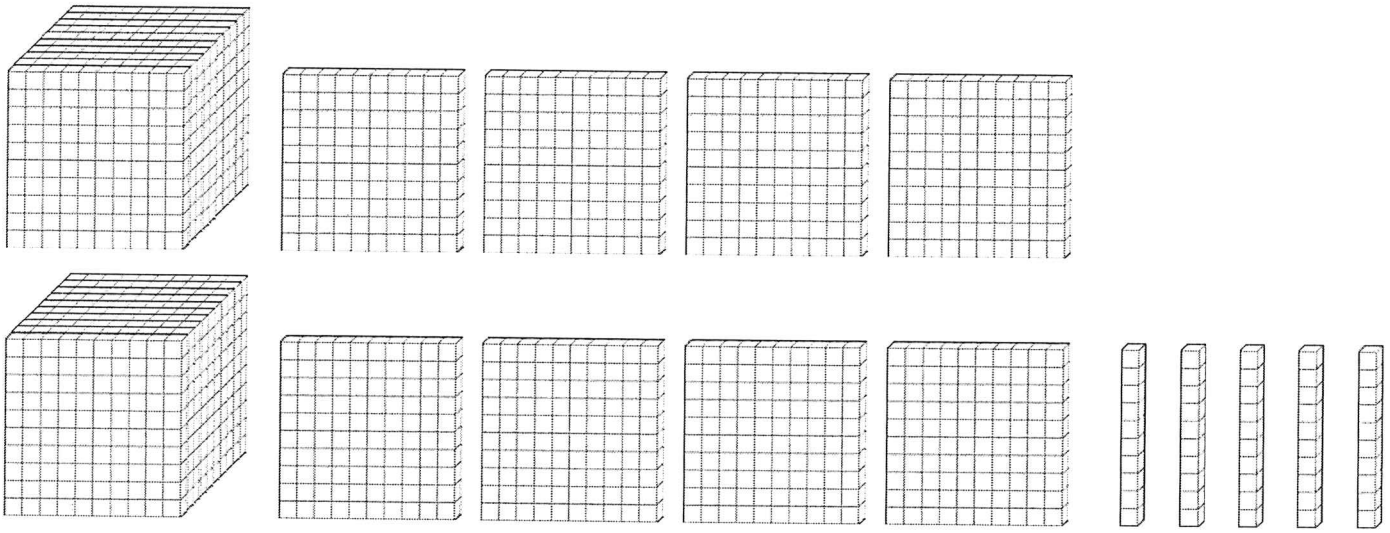
6. Order the following numbers from largest to smallest:

Smallest	121 211	11 112	122 211	11 211	121 211	Greatest

Identify, Represent and Estimate

Use models and representations of numbers

7. What number is shown? _____



Rounding

Round numbers to the nearest 10, 100, 1000, 10 000 or 100 000

8. 4500 rounded to the nearest 1000 is _____

   253 450 to the nearest 10 000 is _____

Read and Write Numbers in Numerals and Words

9. Complete the table:

Numerals	Words
	Three hundred and forty-four thousand, two hundred and eighty-five
855 102	
	Six hundred and twenty-two thousand, nine hundred and sixteen
120 563	

Roman Numerals

10. Use the following Roman numerals to represent numbers to 100:

Roman	Numeral
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

CCXIX = _____

DCXXVI = _____

CMXLVIII = _____

MDCCCLXXI = _____

Solve Problems

11. Here are 3 years written in Roman Numerals. Order the years from earliest to latest:

MMIX MCMXCIX MMXV

Addition and Subtraction

Add and Subtract Mentally

12. Add and subtract three-digit numbers and ones, tens and hundreds

376 + 3 = _____ 376 + 40 = _____ 376 + 200 = _____

Mental Methods

13. Add and subtract numbers mentally with larger numbers

15 672 – 3200 = _____

Formal Methods

14. Use a formal written method to calculate:

```
   7 2 6 9 8
+  6 1 5 6 2
  ___________
  ___________
```

```
   8 4 9 3 5
-  1 2 4 2 3
  ___________
  ___________
```

```
   6 4 8 1 2
-  2 9 3 6 4
  ___________
  ___________
```

Estimate and Inverse

15. Estimate by rounding to check accuracy.
Use the inverse to check the following calculations. Circle 'correct' or 'incorrect.'

6470 + 1248 = 7718 correct/incorrect

5905 - 2674 = 2231 correct/incorrect

Solve Problems

Multi-step problems

16. 8451 people visit a cinema on one day. There are two films showing. 3549 adults and 946 children see an adventure film, 1263 adults and a number of children see an animation.

How many adults are there? _____

How many children are there? _____

How many children see the animation? _____

How many more children see the animation than the adventure film? _____

Multiplication and Division

Multiplication Tables

17. Fill in the missing numbers:

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1		3		5	6		8		10	11	
2		4		8	10		14		18			24
3	3		9							30		36
4					20						44	
5						30					55	
6	6					36		48		60		72
7	7		21		35		49		63		77	
8				32			56		72		88	96
9	9	18			45			72		90		108
10	10		30			60						120
11			33		55						121	
12	12		36			72						144

Multiplying and Dividing

18. Use knowledge of place value and related facts to solve these calculations:

400 × 5 = _____ 630 ÷ 7 = _____

Multiply by 0 and 1 and divide by 1:

285 × 1 = _____ 285 × 0 = _____ 285 ÷ 1 = _____

Multiplying and dividing whole numbers and decimals by 10, 100 and 1000:

45 × 10 = _____ 6.7 × 100 = _____ 902 × 1000 = _____

59 ÷ 10 = _____ 4506 ÷ 100 = _____ 382 ÷ 1000 = _____

Factor Pairs and Commutativity

19. What are all the factor pairs of 56? _____

    Use your factor pairs to solve:
    56 pencils are shared between 4 tables. How many pencils does each table receive?

    _____

20. Change the order of the numbers in these calculation without changing the answer:

    5 × 9 × 2 = 90 _____

    6 × 3 ×10 = 180 _____

Prime Numbers

21. List all the prime numbers up to 20. _____

    List all prime numbers between 20 and 30. _____

    What would be the first prime number after 100? _____

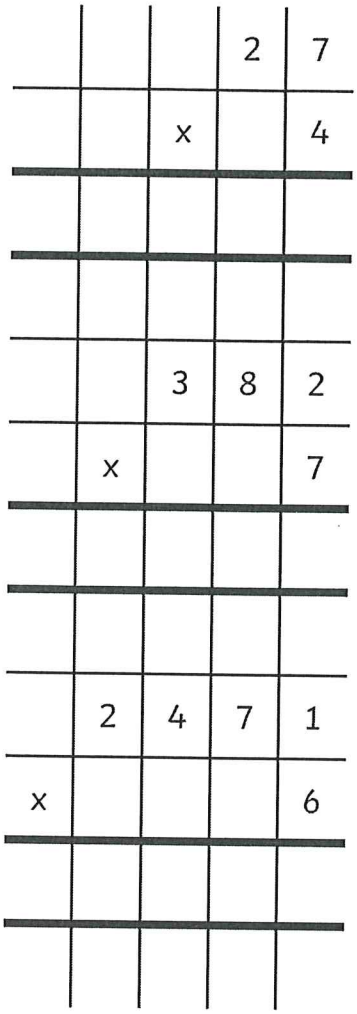
Square and Cube Numbers

22. Write these numbers into the correct place in the table:
    9, 144, 27, 4, 1, 8, 100, 81, 125, 16, 25, 64, 121

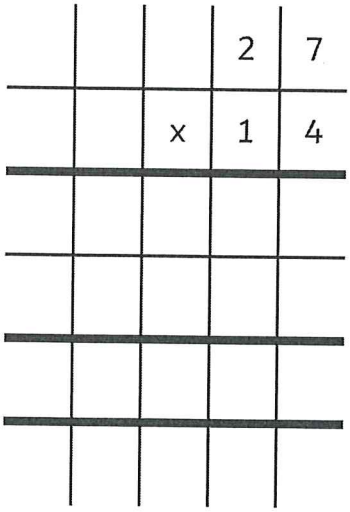
Square Numbers	Cube Numbers

Formal Methods

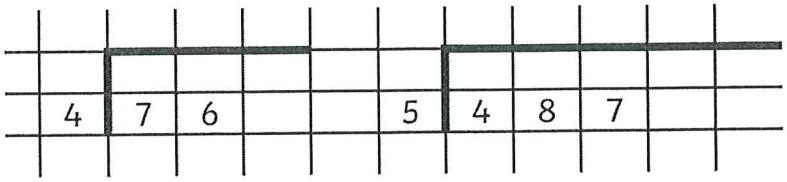
23. Use formal written methods to multiply:



24. a) Use the formal long multiplication method to calculate:



b) Use a short division method to solve these problems:



25. Fill in the missing numbers to complete the calculations.

☐ × 3 = 45 or 56 ÷ ☐ = 14

Word Problems:

26. A teacher has four new boxes of pencils, each with 12 pencils, and a tray with 37 pencils. The teacher shares equally all the pencils between 5 tables. How many pencils does each table receive? Show your working out below.

Scaling Problems with Simple Fractions

27. 12 pizzas are cut into quarters. Into how many pieces of pizza will the pizzas be cut?

_____

Correspondence problems

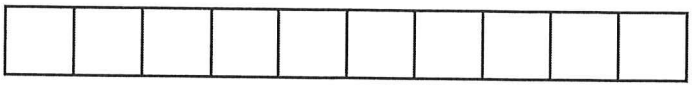
28. Jenna has 2 t-shirts and 4 pairs of shorts. How many different combinations of the t-shirts and shorts does Jenna have? _____

29. 120 pencils are shared equally between 3 classes. How many pencils will they each receive?

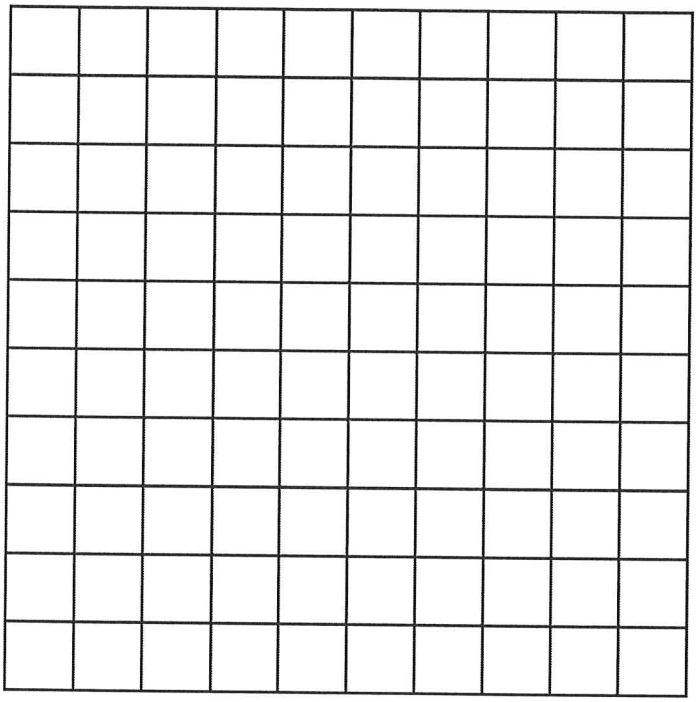
_____

Fractions

30. Shade to show 7/10:

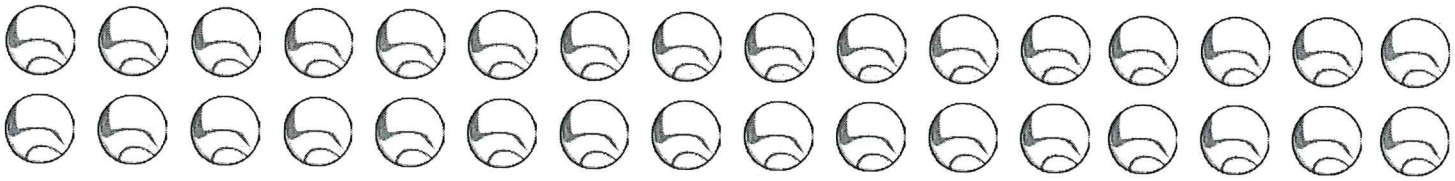


Shade to show 46/100:



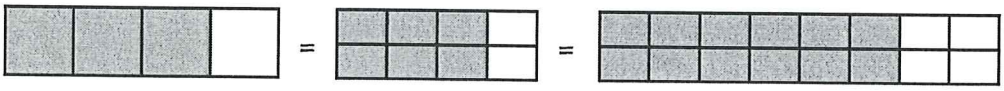
Fraction of a Set of Marbles

31. Find $\frac{5}{8}$ of these marbles by circling:



Equivalent Fractions

32. Write in the missing fractions



____ ____ ____

1															
$\frac{1}{2}$								$\frac{1}{2}$							
$\frac{1}{4}$				$\frac{1}{4}$				$\frac{1}{4}$				$\frac{1}{4}$			
$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$	$\frac{1}{16}$

1															
$\frac{1}{3}$						$\frac{1}{3}$						$\frac{1}{3}$			
$\frac{1}{6}$				$\frac{1}{6}$				$\frac{1}{6}$				$\frac{1}{6}$			
$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$	
$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$

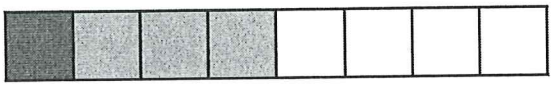
1															
$\frac{1}{5}$				$\frac{1}{5}$				$\frac{1}{5}$				$\frac{1}{5}$			
$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$	
$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$	$\frac{1}{20}$

33. Write 3 fractions that are equivalent to $\frac{1}{3}$ _____, _____, _____

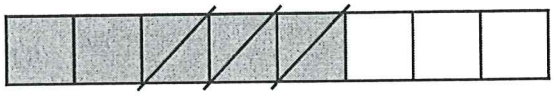
Add and Subtract Fractions with the Same Denominator and with Denominators that are Multiples

34. Find the missing equivalent fractions.

$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} =$



$\frac{5}{8} - \frac{3}{8} = \frac{2}{8} =$



Compare and Order

Unit fractions

35. a) Order these fractions from smallest to greatest:

smallest $\frac{1}{6}$ $\frac{1}{3}$ $\frac{1}{8}$ $\frac{1}{4}$ greatest

b) Use <. > or = to compare these fractions:

$\frac{1}{5}$ ☐ $\frac{3}{5}$

$\frac{5}{8}$ ☐ $\frac{1}{4}$

Mixed Numbers and Improper Fractions

36. Write the improper fraction:

Mixed fraction $1\frac{1}{5}$ = - Improper fraction

Multiply Fractions

37. Complete the missing fractions:

$\frac{2}{3} \times 5 = \frac{\square}{3} = 3\frac{\square}{3}$

Decimal Equivalents

38. Complete the missing tenths, hundredths and decimals:

$\frac{\quad}{10} = 0.7$ $\frac{\quad}{100} = 0.43$

$\frac{1}{4} = 0.2\_$ $\frac{1}{2} = 0.\_\_$ $\frac{3}{4} = 0.7\_$

Write decimals as a fraction:

$0.\_\_\_\_ = \frac{67}{100}$

Division by 10 and 100

39.

$2 \div 10 =$ _____ $2 \div 100 =$ _____ $25 \div 10 =$ _____ $25 \div 100 =$ _____

Rounding Decimals

40. Round these decimals to the nearest whole number:

0.5 rounds to _____

2.35 rounds to _____

Round this decimal to one decimal place:

0.05 rounds to _____

Read, Write, Order and Compare Decimals

41. Write the decimal in digits:

zero ones, four tenths and five hundredths. _____

two ones, three tenths and four hundredths. _____

Percentages

42. Complete the missing percentages:

_____% $= \frac{50}{100} = \frac{1}{2}$ $41\% = \frac{\quad}{100}$

Solve Problems

Fractions

43. Adil divides his marbles into tenths. He wants to give two friends an equal number of marbles but still have 3 times more than their individual amounts. What fractions could he split his marbles into?

Measure and Money Problems

44. a) Ellie buys a new shirt for £4.75 and a pair of trousers for £3.50 in a sale. She pays with a £10 note. What change will she receive?

b) A bag of potatoes weigh 2.45kg. How much will 4 bags weigh?

Decimal Problems to 3 Decimal Places

45. A packet of sugar weighs 1.348kg. $\frac{3}{4}$ kg is used to bake some cakes.

How much will the packet weigh now?

Knowing Percentage and Decimal Equivalents

46. Order the following from smallest to largest:

25%, 0.3, $\frac{2}{5}$

Measurement

Estimate, Measure, Compare, Add and Subtract

47.

Lengths (mm/cm/m)

Measure and draw lines using a ruler in centimetres (cm) or millimetres (mm).

This line is _____cm or _____mm long.

Mass (g/kg)

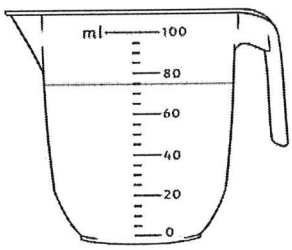
Measure the mass of objects using different scales

48. 3 apples weigh 435g. One is eaten, and the 2 remaining apples weigh 285g. What is the mass of the eaten apple?

Capacity (ml/l)

49.

Circle the jug which has more water:



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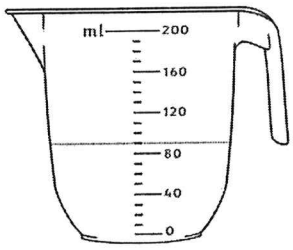

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Convert between units

50.

Complete the missing conversions:

Length:

1 km = _____m

1m = _____cm or _____mm

1cm = _____mm

Mass:

1kg = _____g

Capacity/ Volume:

1l = _____ml

Time:

1 year = _____days

1 week = _____days

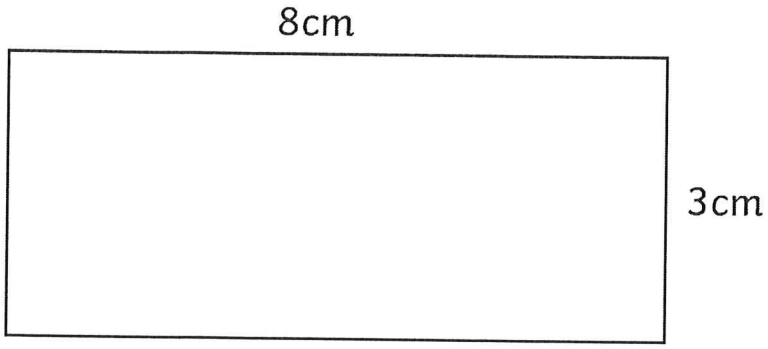
1 day = _____hours

1 hour = _____minutes

1 minute = _____seconds

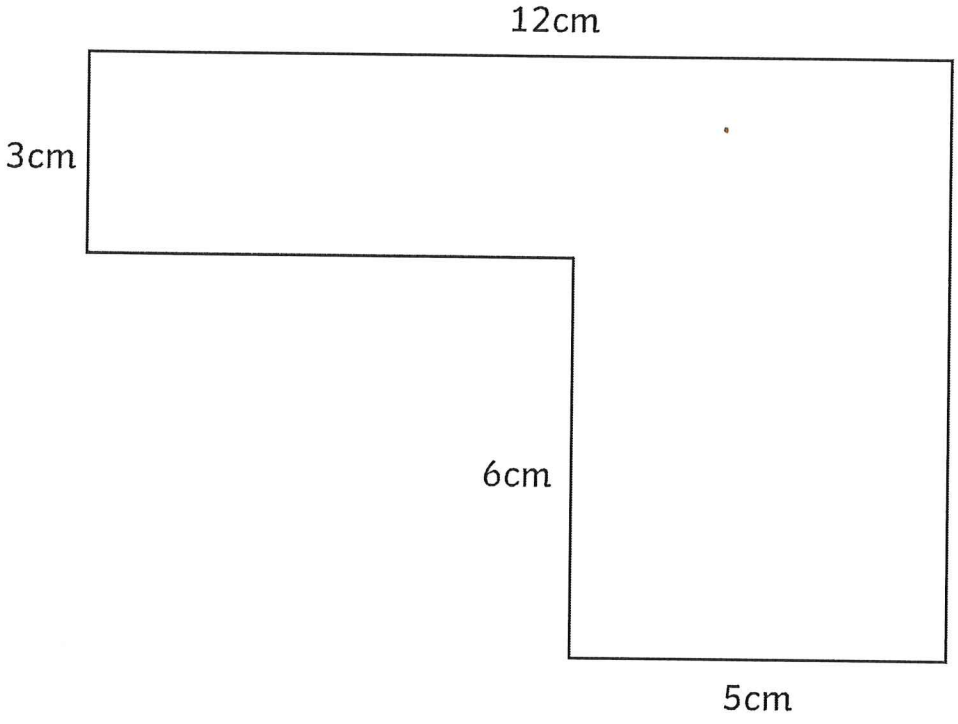
Perimeter

51. Calculate the perimeter:



Perimeter = _____cm.

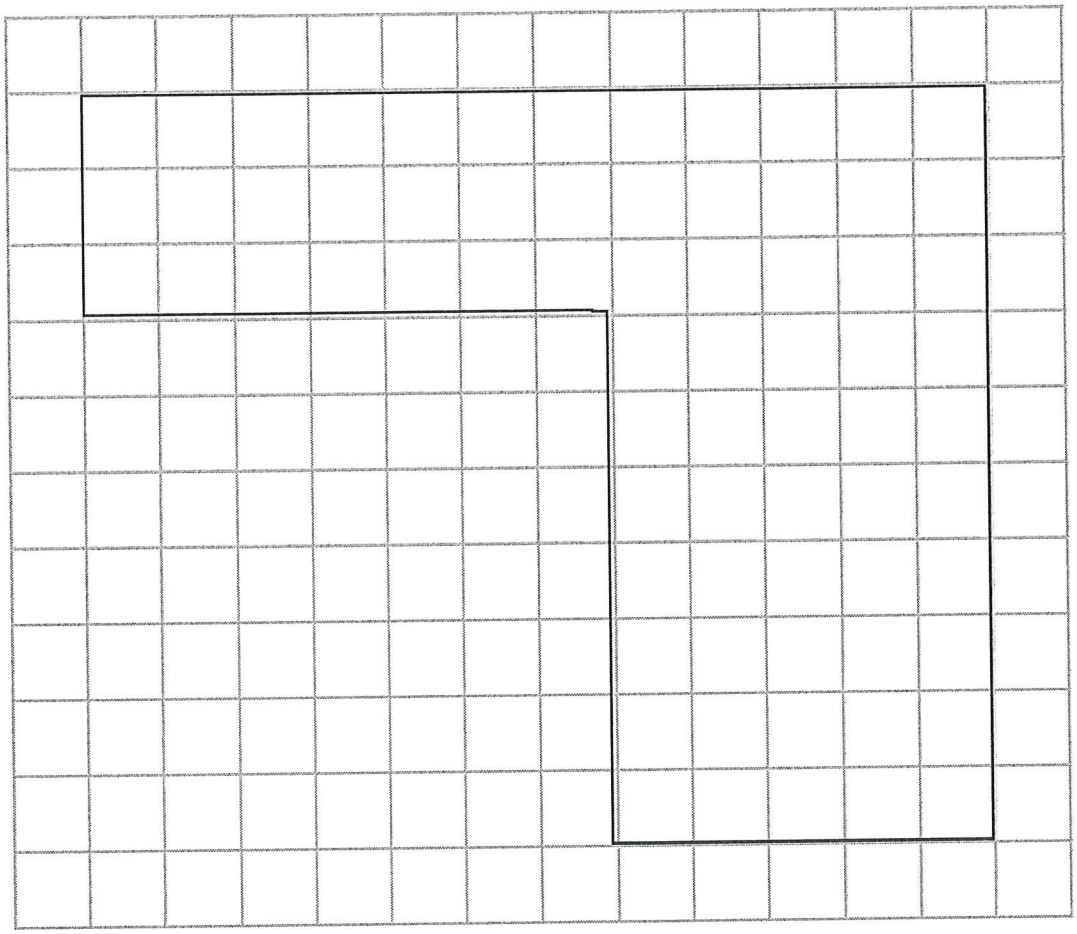
Measure and calculate the perimeter of rectilinear shapes (including squares)



Perimeter = _____cm.

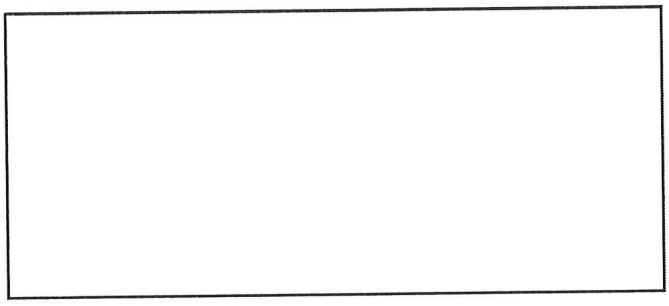
Area

52. a) Calculate the area of this rectilinear shape by counting squares:



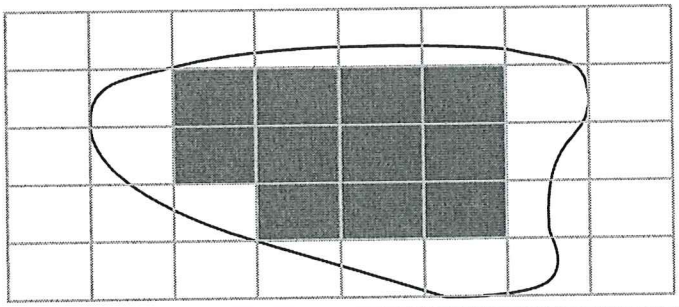
Area = _____ cm^2

b) Measure the sides of the rectangle and calculate the area:



Area = _____cm × _____cm = _____cm^2

c) Estimate the area of this irregular shape:



_____

Money

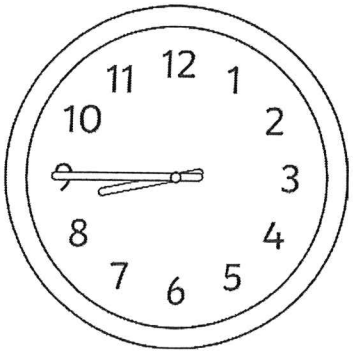
53. Add and subtract giving change

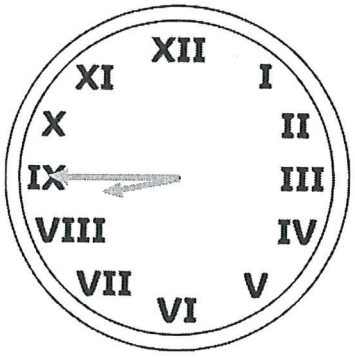
Jude buys a bag of apples for £2.25 and some avocados for £3.15.How much change will he get from £20?

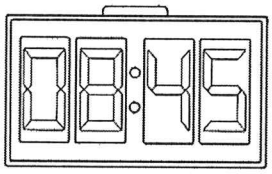
Time

54. Analogue clocks and 12/24 hour time

a) What time do these clocks show? _____







b) The maths lesson lasted 1 hour and 5 minutes. The art lesson was one hour and twenty minutes. Which lesson was longer and by how long? _____

c) A film lasts 136 minutes. How long is the film in hours and minutes?

_____ **hours and** _____ **minutes**

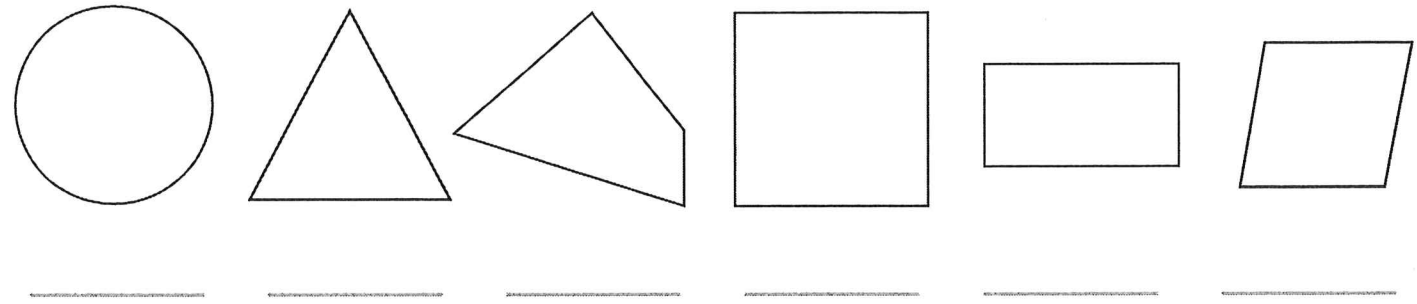
Solve Problems

55. a) 2 equal bottles of water contain 500ml of drink. How many litres will 7 bottles hold?

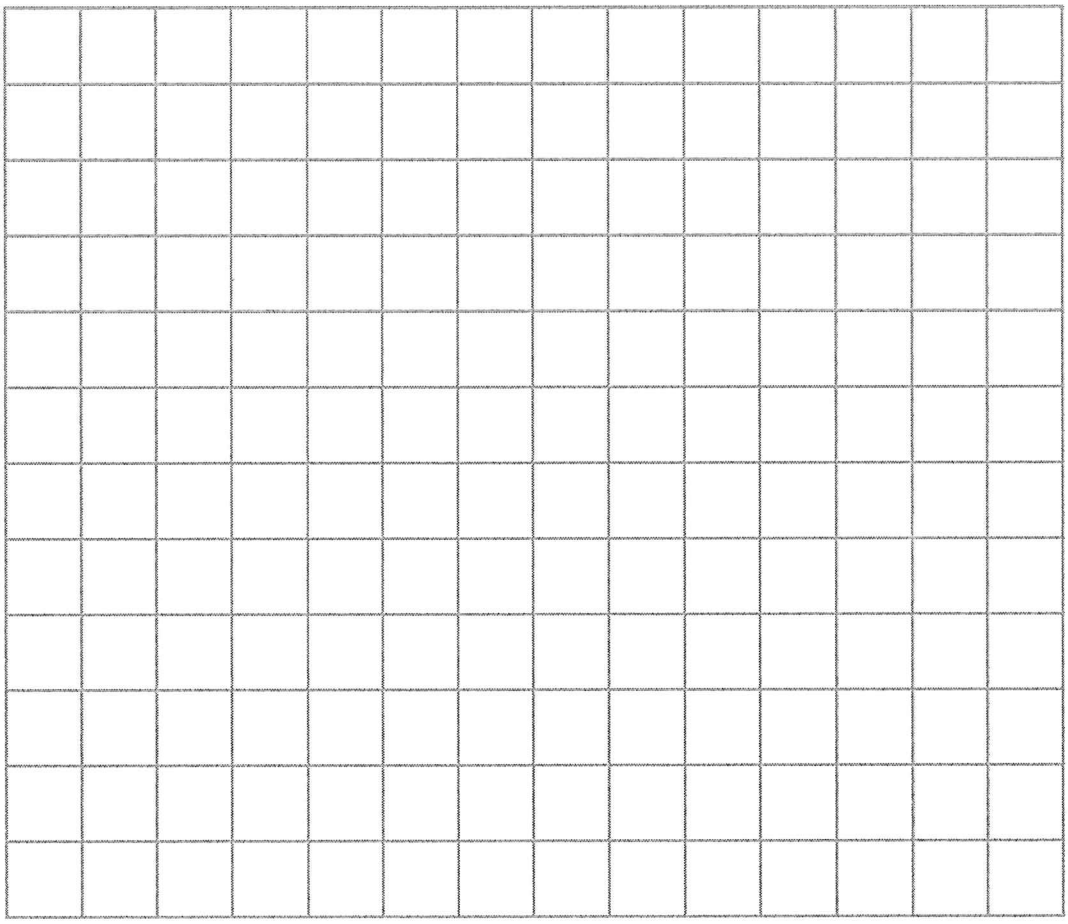
b) A 6.5kg bag of soil is divided into 20 pots equally. Each pot needs 0.5kg. How much more soil does each pot need after the bag is used up?

2D Shapes

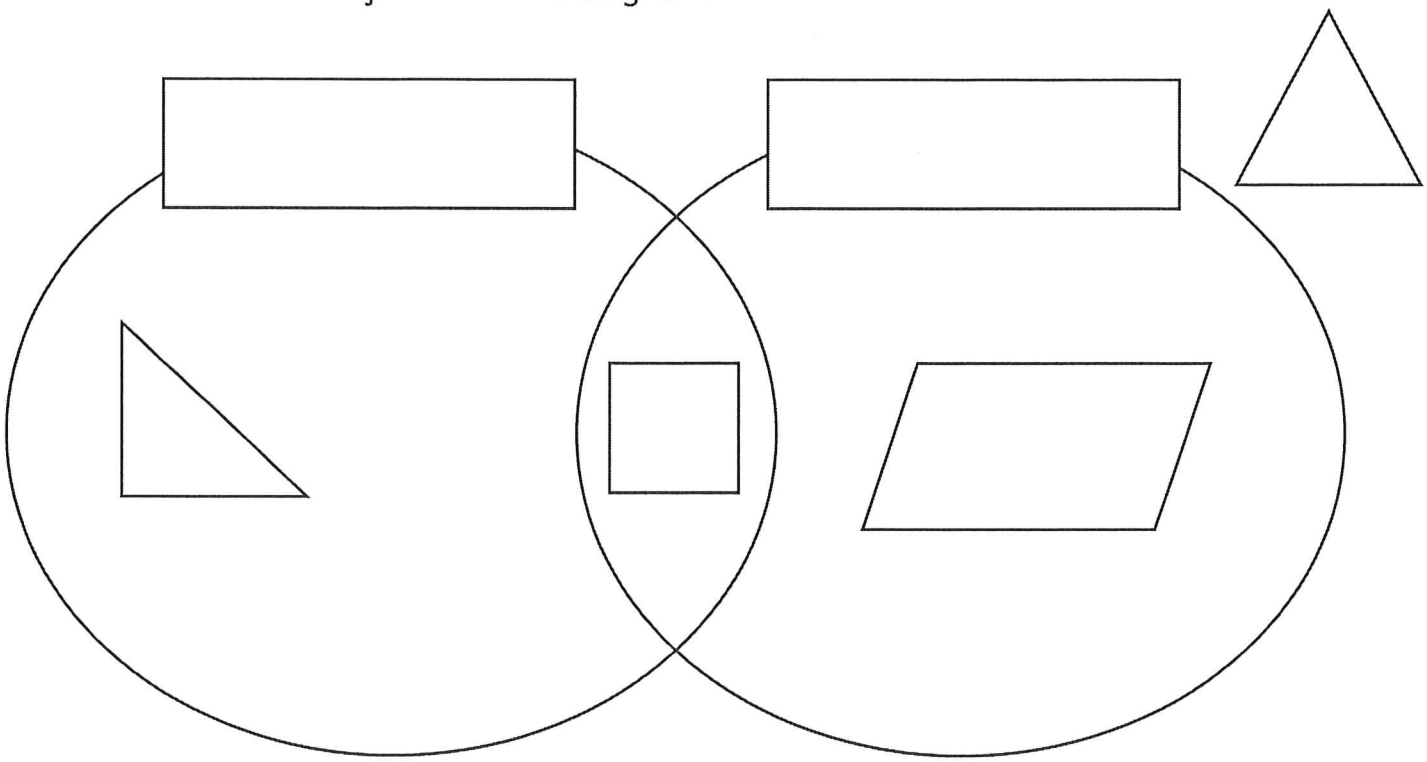
56. Label the shapes.



57. Draw a square on 1cm squared paper with sides of 4cm.



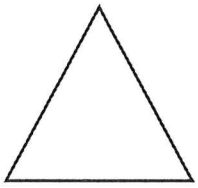
58. Write suitable titles for this Venn diagram:



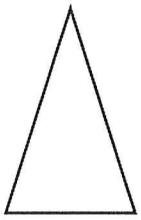
Triangles

59. Label the triangles.

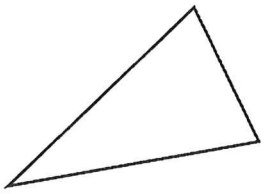
_____ (all sides and angles equal)



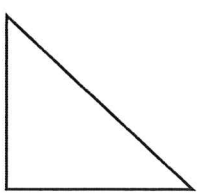
_____ (2 sides and angles equal)



_____ (no sides and angles equal)

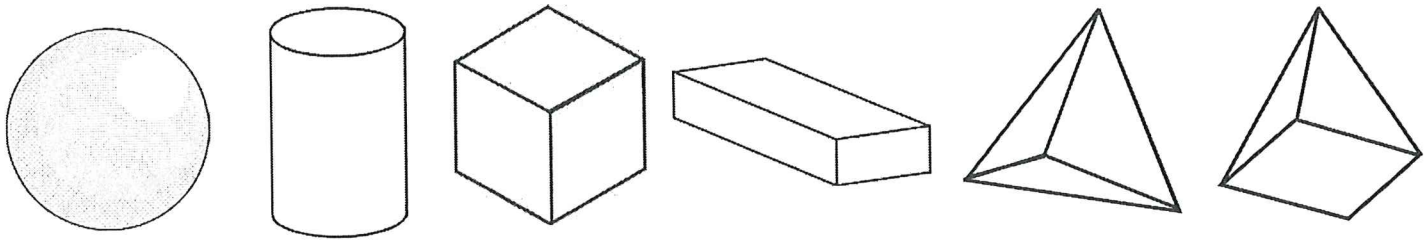


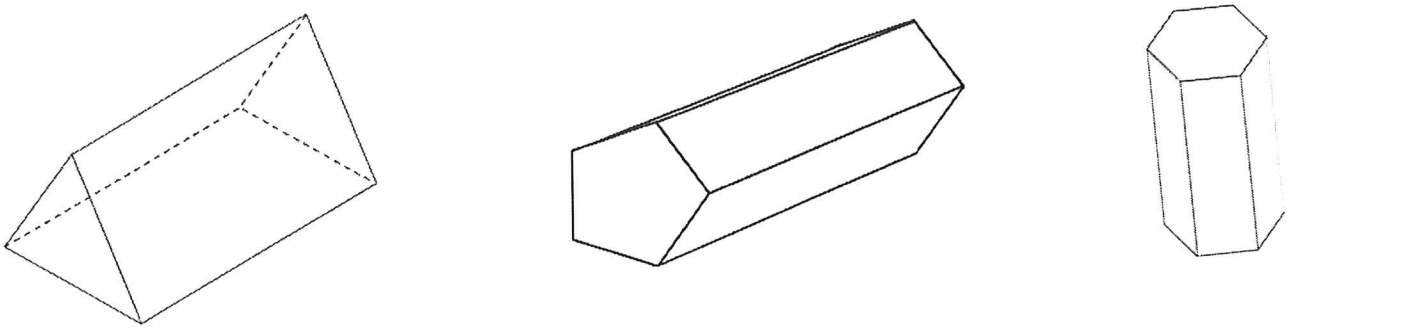
_____ (one angle a right angle)



3D Shapes

60. Label the shapes:



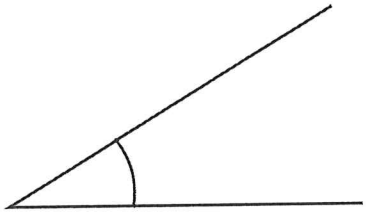


Recognise 2D representations and make models from modelling materials

Angles

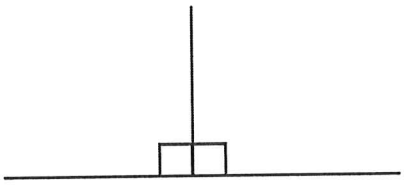
61. Complete the statements:

An _____ measures a turn.

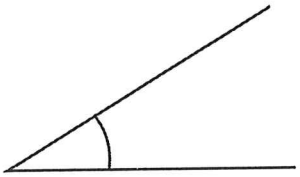


A _____ _____ is the corner of a square.

_____ right angles make a straight line.



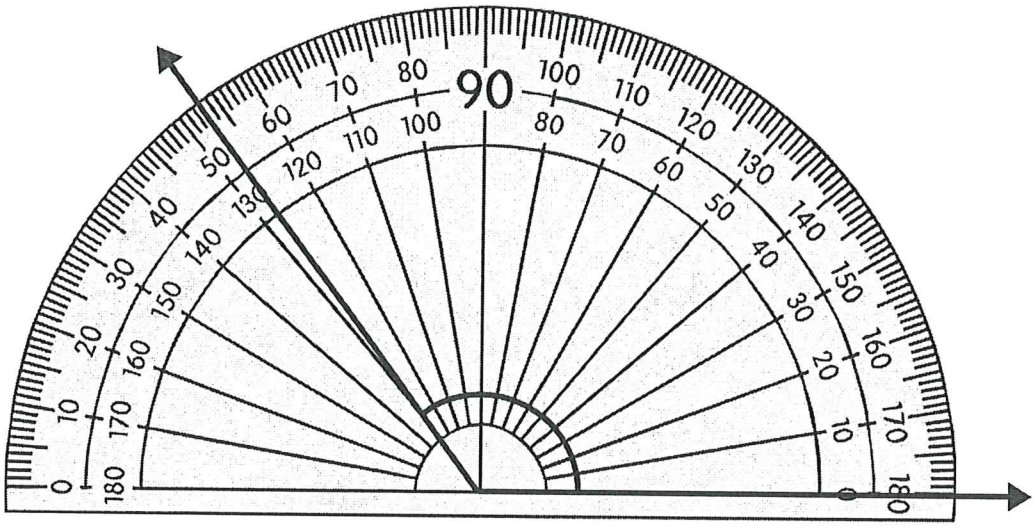
An _____ angle is less than a right angle (90°).



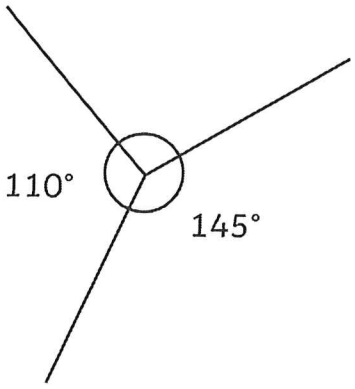
An _____ angle is between a right angle and a straight line.

Draw and Measure Angles

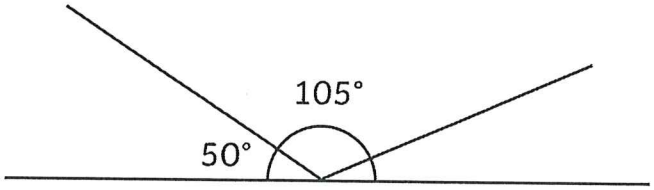
62. a) Measure the angle: _____



b) Calculate the missing angles:



c)

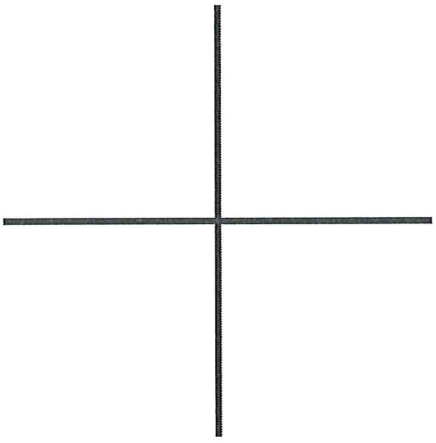


One right angle = _____° Two right angles = _____° Three right angles = _____°

Lines

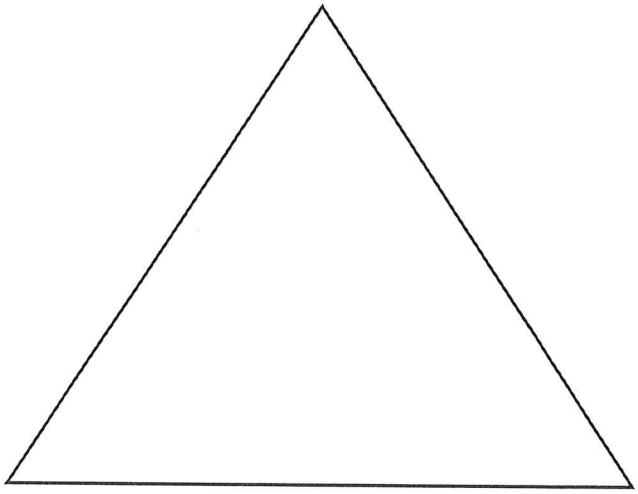
63. Label the lines using the word bank:

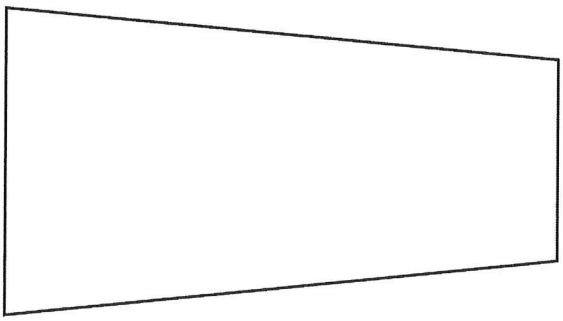
vertical
parallel
horizontal
perpendicular



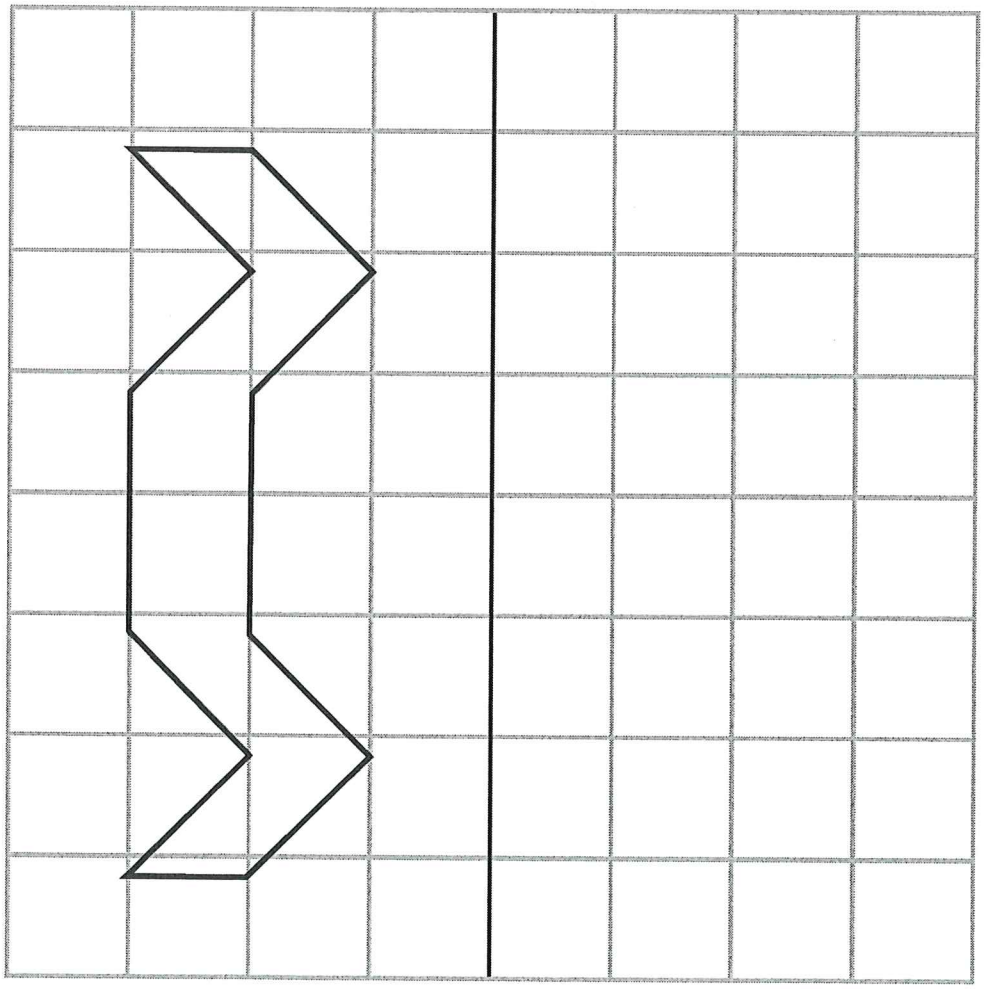
Symmetry

64. Mark the lines of symmetry in these shapes:



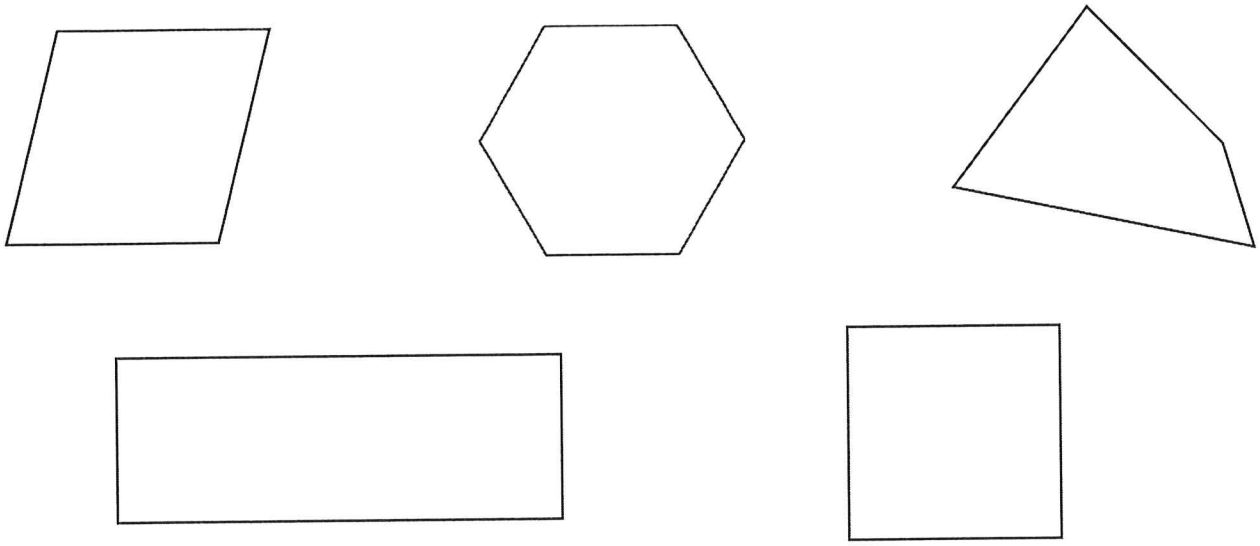


Complete the symmetrical figure:



Regular and Irregular Polygons

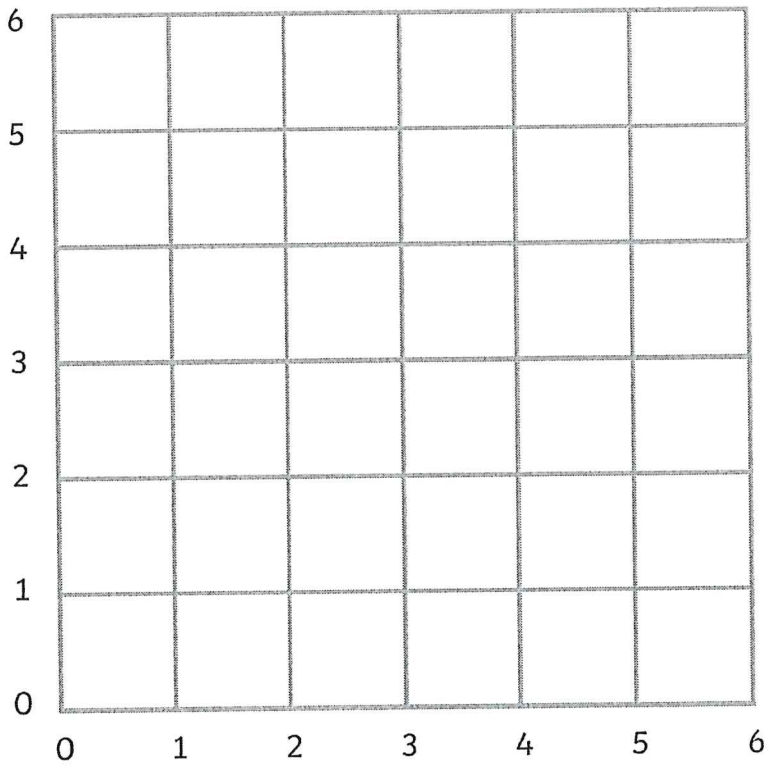
65. Circle the regular polygons:



Geometry – Position and Direction

Coordinates

66.



Label A, B and C The coordinates are

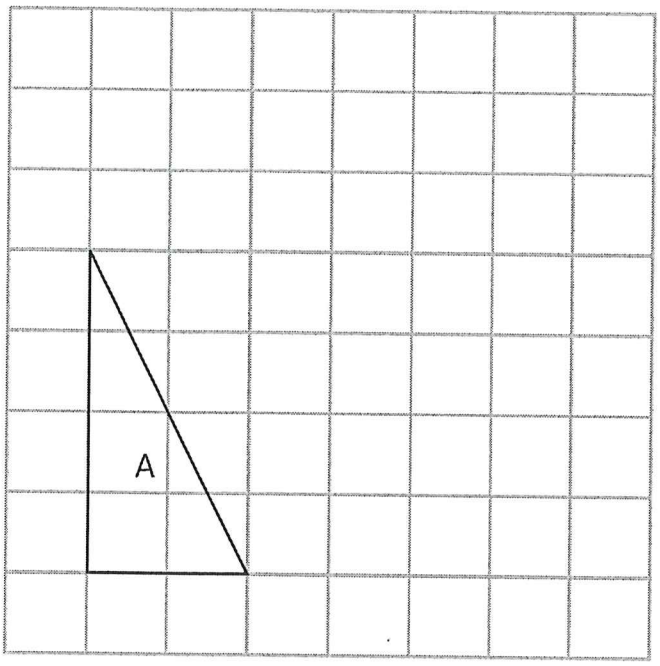
A (1,3)

B (2,4)

C (4,2)

What are the coordinates of the point that will complete a rectangle? _____

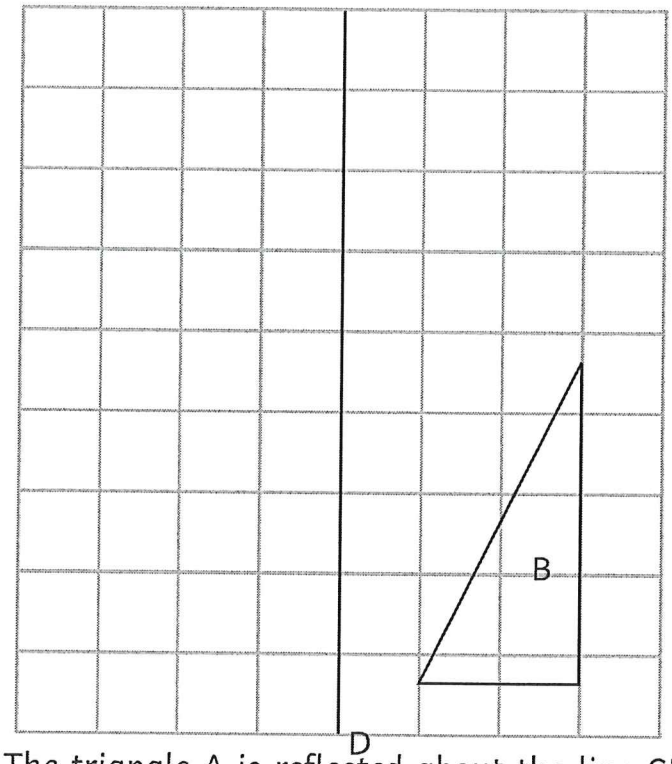
Translation



The triangle A is translated three squares to the right and two squares up to triangle B.

Mark triangle B

Reflection



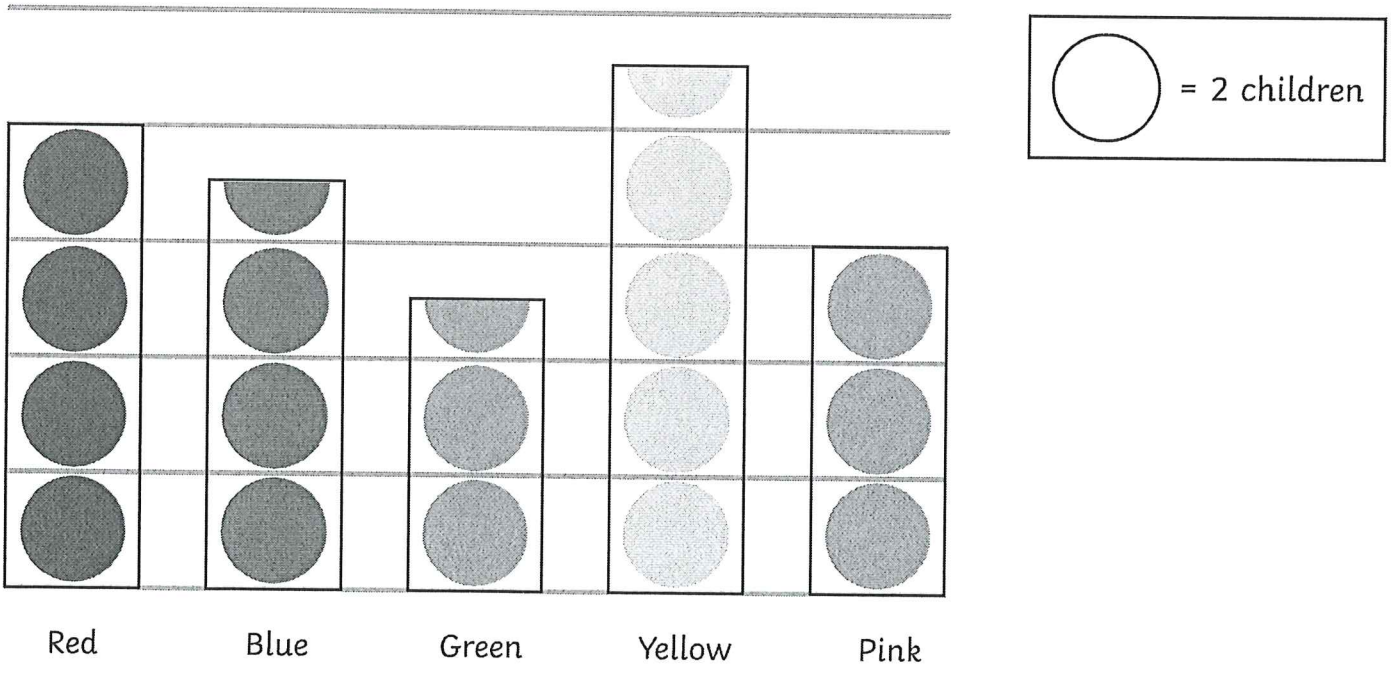
The triangle A is reflected about the line CD to triangle B.

Statistics

67. Present data in these graphs and tables and solve problems:

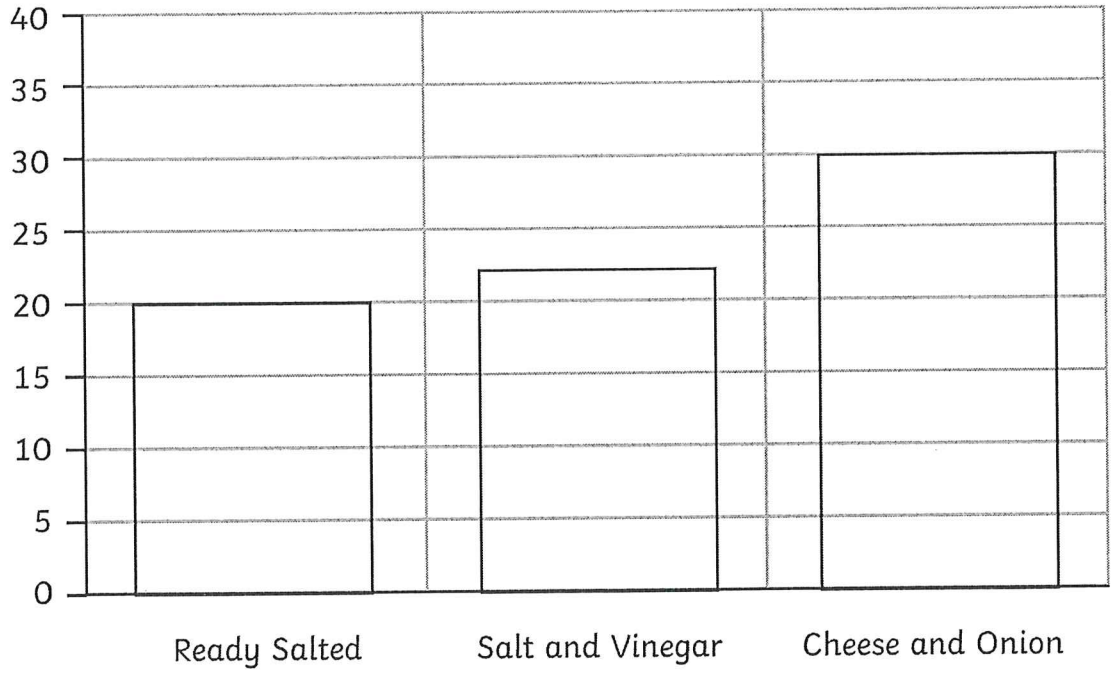
Pictograms

Favourite Colour

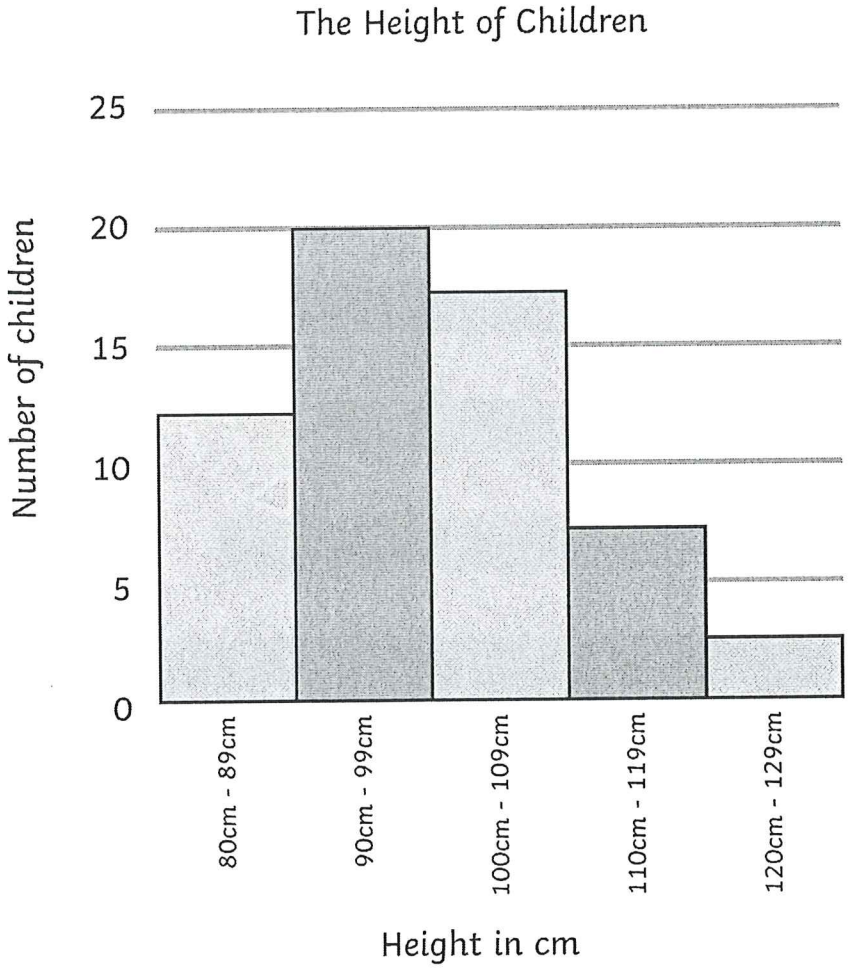


a) How many children chose their favourite colour? _____

Bar Charts



a) How many more children chose cheese and onion as their favourite crisps than ready salted?



c) How many children are shorter than 1m? _____

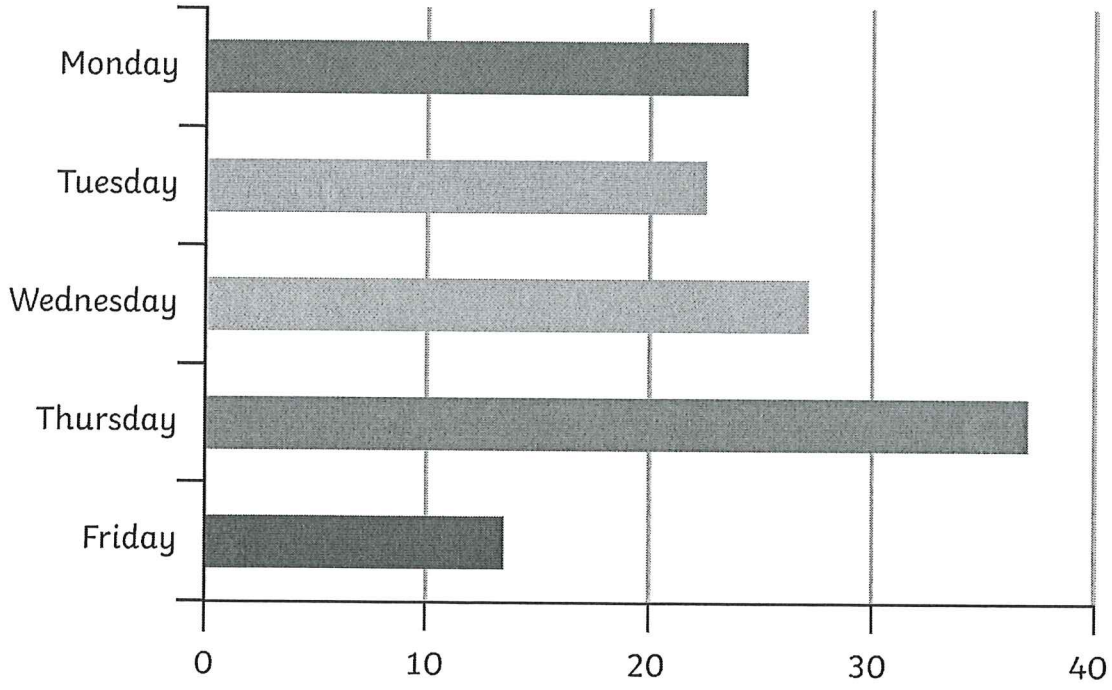
Tables

	Monday	Tuesday	Wednesday	Thursday
Saturn	2	1	3	4
Twin	0	2	2	3
Stars	5	3	2	0
Cluster	2	2	2	2
Treasure	1	3	5	0
Tiger	6	3	4	1
Plimmy	1	3	2	2

d) Which chocolate bar is the most popular? _____

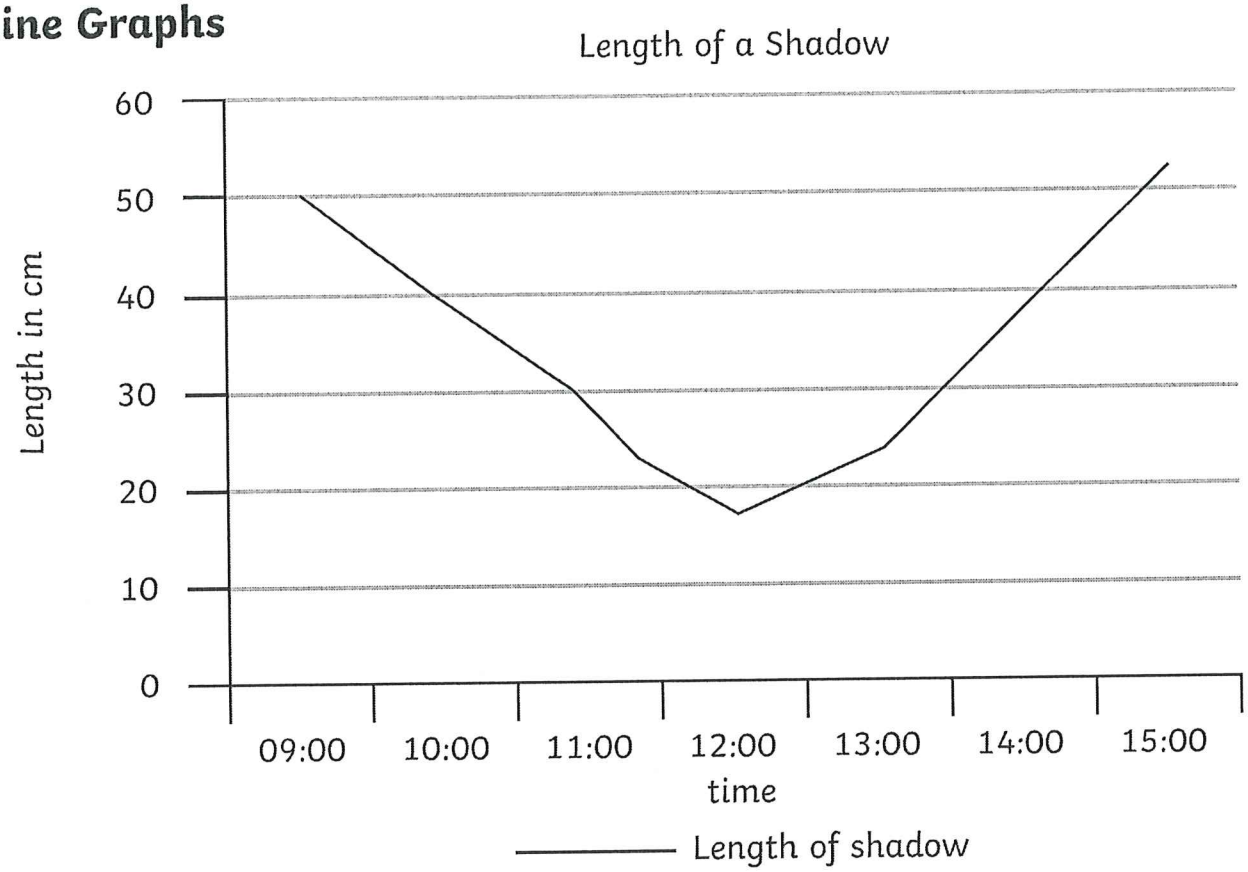
Time Graphs

Number of Children Who Have a School Meal



e) How many children had a school meal during the week? _____

Line Graphs



f) In which hour was the largest change in the length of the shadow? _____

Time Graphs

Train timetable from London to Newcastle

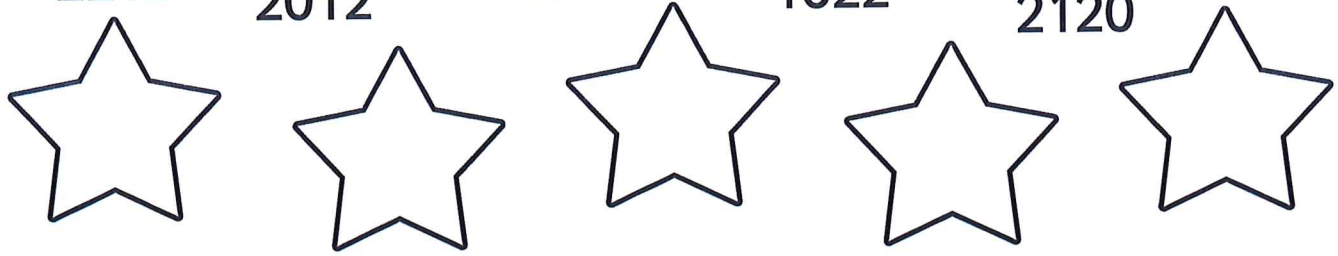
Destination	Journey A	Journey B	Journey C
London	10:20	11:30	16:40
Derby	12:20		18:00
Sheffield	12:40	13:10	18:30
Hull	13:20	13:55	19:15
Newcastle	14:25	14:40	

g) Which train takes the least time to get from London to Hull? _____

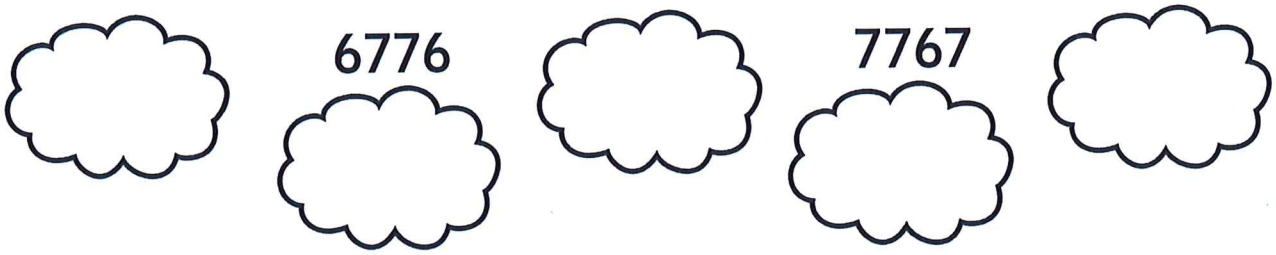
Ordering Numbers to 10 000

Fill in the spaces below with the numbers in order from smallest to largest.

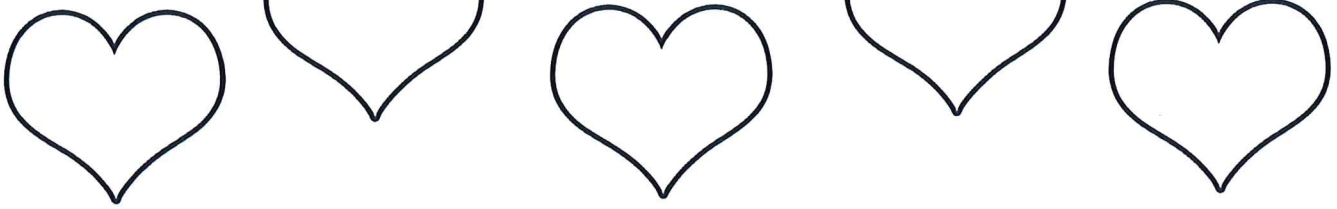
2212 2012 1201 1022 2120



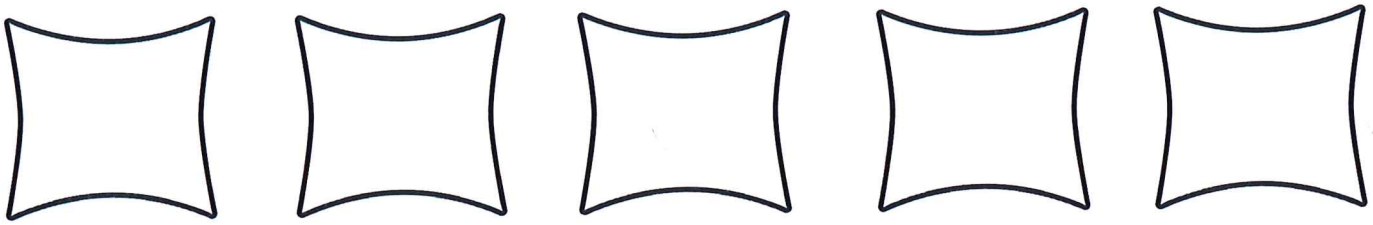
7676 6776 6677 7767 7776



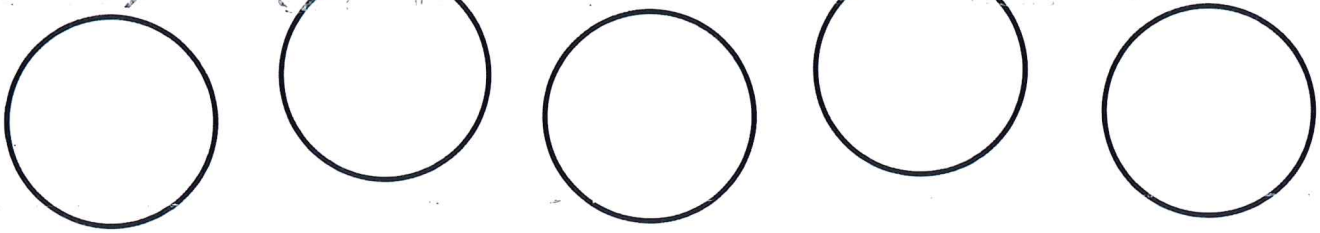
4849 4948 4489 4994 499



1661 6161 1616 6611 6616



7220 2770 770 720 2707

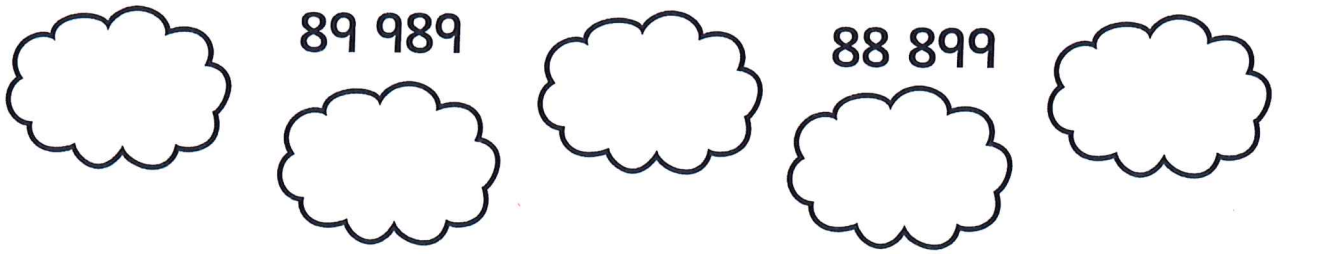


Ordering Numbers to 100 000

Fill in the spaces below with the numbers in order from smallest to largest.

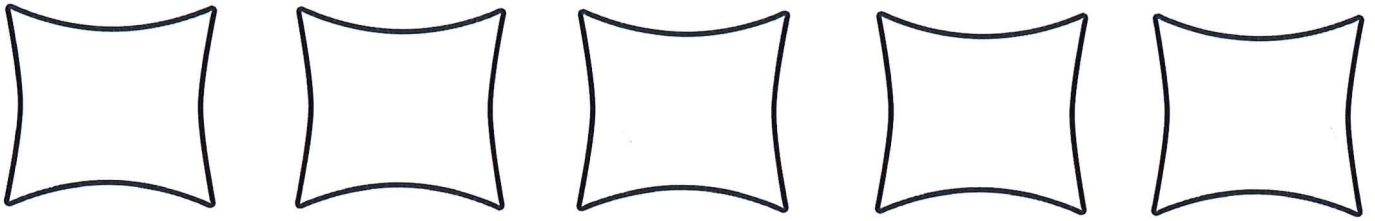
35 435 | 34 534 | 35 533 | 34 453 | 34 543

89 998 | 89 989 | 88 988 | 88 899 | 89 899

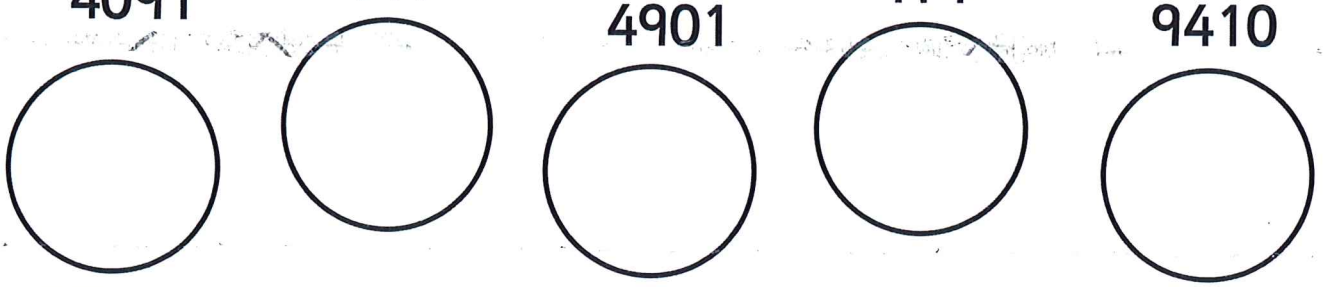


17 717 | 7771 | 7177 | 77 717 | 71 717

25 645 | 26 255 | 25 562 | 24 654 | 25 622

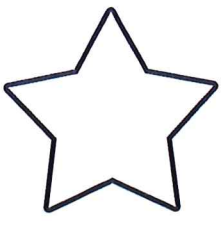


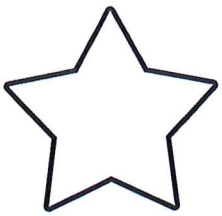
4091 | 491 | 4901 | 914 | 9410

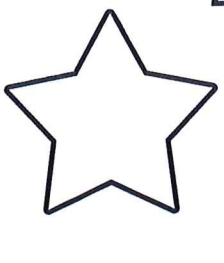


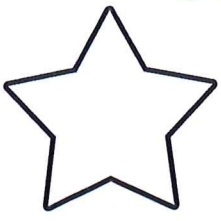
Ordering Numbers to 1 000 000

Fill in the spaces below with the numbers in order from smallest to largest.

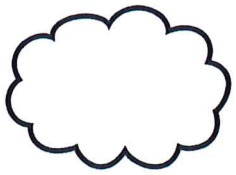
245 452 

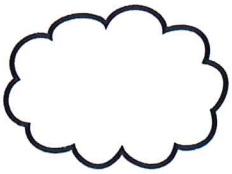
254 245 

45 254 

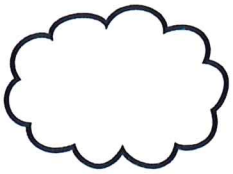
452 524 

54 542 

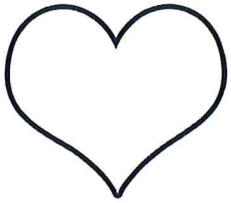
90 900 

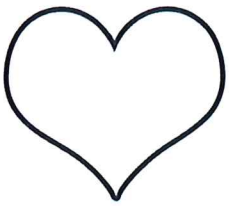
909 009 

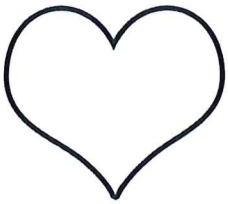
999 909 

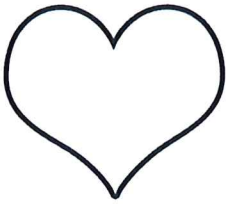
990 009 

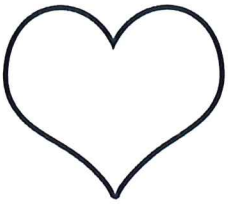
99 900 

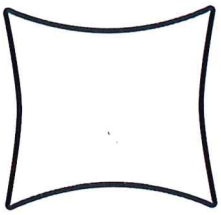
368 863 

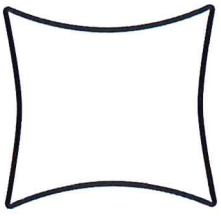
683 836 

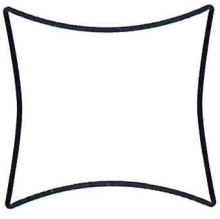
683 863 

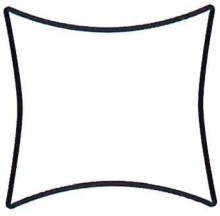
836 368 

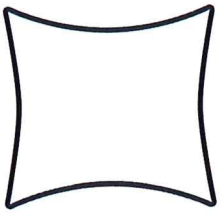
386 386 

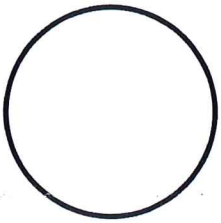
725 500 

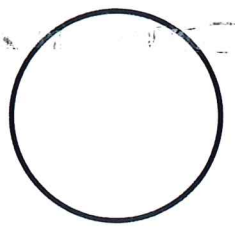
527 700 

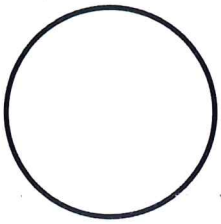
77 500 

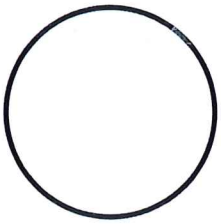
55 200 

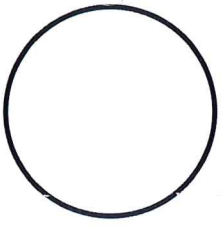
725 700 

110 001 

111 010 

11 110 

111 101 

110 100 

Writing Numbers to 1 000 000 in Words

Write the following numbers in words:

23 443	Twenty three thousand, four hundred and forty three
51 623	
78 785	
33 091	
60 696	
402 341	
589 130	
645 099	
840 781	
709 118	
112 098	
245 590	
390 519	
101 010	

Writing Words to 1 000 000 in Numbers

Write the following words in numbers:

Two hundred and forty five thousand, eight hundred and forty six	245 846
Six hundred thousand, seven hundred and thirty two	
Nine hundred and thirteen thousand, five hundred and forty one	
Seven hundred and fifteen thousand, two hundred and twenty eight	
Four hundred and six thousand, seven hundred and ninety four	
Nine hundred and thirty six thousand, two hundred and fifty five	
One hundred and seventeen thousand and four	
Five hundred and thirty five thousand, seven hundred and six	
Two hundred thousand and twenty two	
Four hundred and eighty eight thousand and sixty	
Eight hundred and forty eight thousand, nine hundred and three	
Nine hundred and ninety one thousand, one hundred and nineteen	
One hundred and ninety nine thousand, nine hundred and nineteen	
Five hundred and fifteen thousand, one hundred and fifty one	

Writing Numbers to 1 000 000 in Words and Numbers

Write the following in words and in numbers:

	56 601
	90 452
Two hundred and fourteen thousand, three hundred and twelve	
Six hundred and fourteen thousand and fifty nine	
	345 327
Four hundred thousand, two hundred and twelve	
Eight hundred and eight thousand, eight hundred and eight	
	880 880
	666 000
Six hundred and sixteen thousand, one hundred and sixty one	
	797 779
Three hundred and thirty seven thousand and thirty seven	
	340 819
Seven hundred and seventeen thousand, one hundred and seventy	

Counting in Multiples of 10

Work out the correct numbers and then find the number trail in the grid below by counting backwards in 30s from the start each time.

535 787 + 10		+10		+10		+10		+10	
879 213 + 20		+20		+20		+20		+20	
756 128 + 50		+50		+50		+50		+50	
919 399 + 60		+60		+60		+60		+60	
754 321 - 10		-10		-10		-10		-10	
134 094 - 70		-70		-70		-70		-70	

START 394 432	394 492	394 585	394 705	394 505	394 805	394 905
394 118	394 402	394 372	394 625	394 957	394 891	394 635
394 292	394 312	394 342	394 302	394 645	394 665	394 232
394 888	394 282	394 485	394 499	394 680	394 685	394 605
394 578	394 252	394 222	394 192	394 102	394 072	394 042
393 565	393 798	393 411	394 162	394 132	393 082	394 012
393 565	393 166	393 374	393 641	393 445	393 052	FINISH 393 982

Counting on and Back in Powers of 10

Complete these sequences by counting on or back in powers of 10.

546	556			
478		678		
4503			4803	
	67			37
4904			5204	
7834		5834		
12 034				8034
23 894	33 894			
	55 903		35 903	
190 780		390 780		
345 000			315 000	
786 457	886 457			
		212 903	112 903	
1 347 500				1 347 900
23 678 340	24 678 340			
83 900 000			80 900 000	
		510 000 000	520 000 000	

Counting Back in Powers of 10

Count back from the given numbers in **10s** (some answers are given)

85	75			
137		117		
652			622	
901				861
3087				
66 815				

Spot the error in this sequence:

98 621	98 611	98 601	98 691	98 581

Count back from the given numbers in **100s** (some answers are given)

431		231		
900			600	
3312	3212			
9028				8628
37 920				
209 372				

Spot the error in this sequence:

191 902	191 802	190 802	189 802	188 802

Counting Back in Powers of 10 (2)

Count back from the given numbers in **1000s** (some answers are given)

4523				523
9000			6000	
13 450	12 450			
102 342		100 342		
398 700				
1 341 299				

Spot the error in this sequence:

199 636	299 636	300 636	301 636	302 636

Count back from the given numbers in **10 000s** (some answers are given)

43 920	33 920			
71 302			41 302	
90 000				50 000
275 400		255 400		
733 450				
2 620 645				

Spot the error in this sequence:

3 610 000	3 510 000	3 500 000	3 310 000	3 210 000

Counting Back in Powers of 10 (3)

Count back from the given numbers in **100 000s** (some answers are given)

690 382		490 382		
968 900				568 900
1 220 765	1 120 765			
2 400 000			2 100 000	
6 256 923				
14 170 000				

Spot the error in this sequence:

52 900 000	51 900 000	51 800 000	49 900 000	48 900 000

Count back from the given numbers in **1 000 000s** (some answers are given)

4 800 000			1 800 000	
7 034 200		5 034 200		
12 945 929	11 945 929			
37 803 549				33 803 549
62 900 310				
231 500 000				

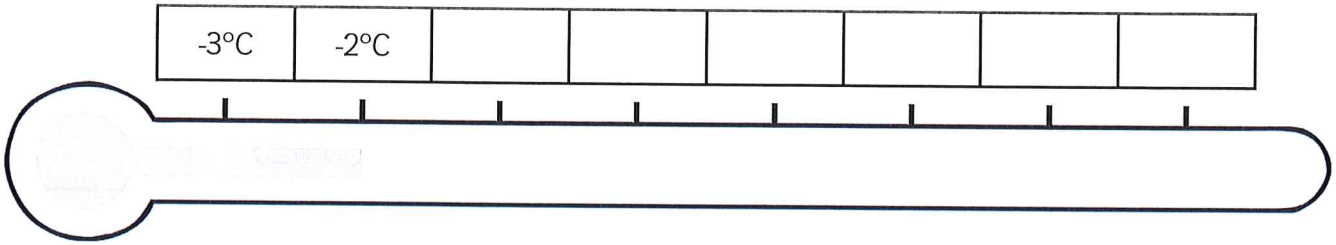
Spot the error in this sequence:

778 100 000	777 100 000	776 100 000	776 900 000	774 100 000

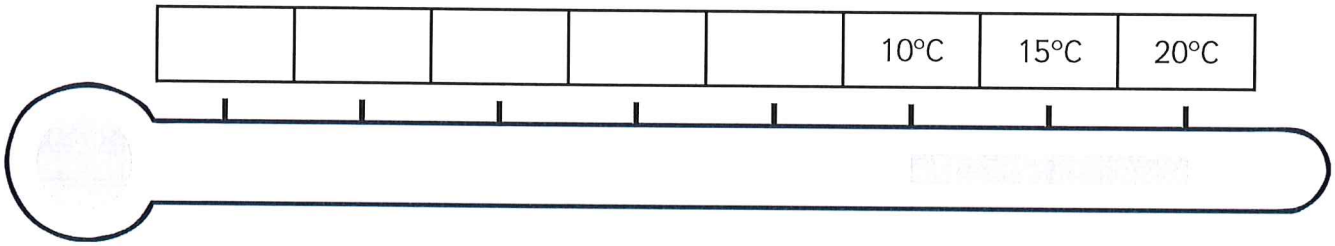
Counting Forwards and Backwards with Positive and Negative Whole Numbers

I can count forwards and backwards with positive and negative whole numbers.

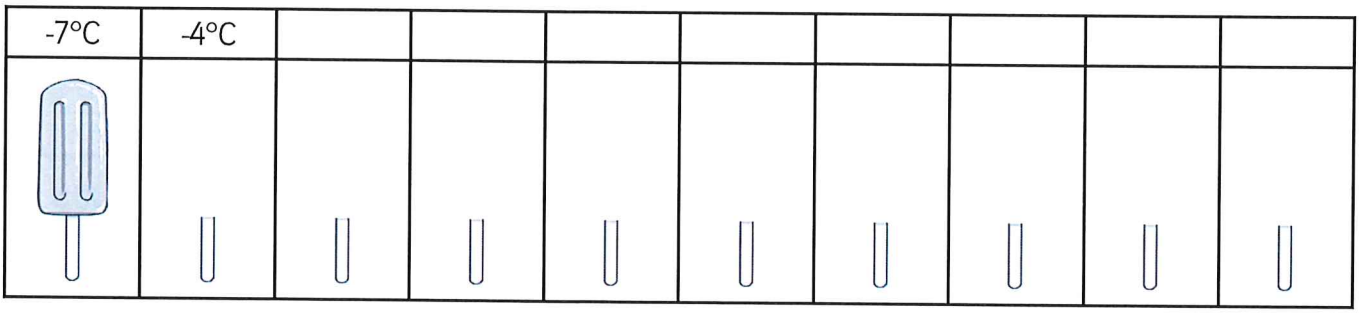
1. Continue this sequence. Colour in the thermometer to match your sequence.



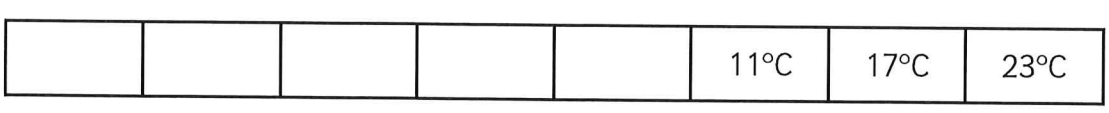
2. Shade the thermometer lightly up to 20°C. Count backwards to continue this sequence and rub out as you go.

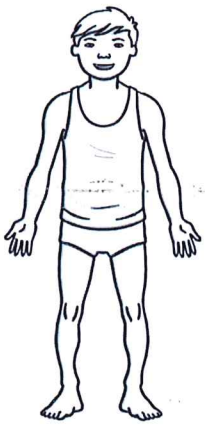


3. Look at the ice lolly on the stick. Count forwards to complete the sequence. As you count forwards draw the ice lolly as it continues to melt in the rising temperature. You should have nothing remaining in the last picture.



4. Continue this sequence backwards. As the temperature drops with each step, draw an extra item of clothing on the person.





5. Figure out the step in each sequence then use the number line below to help you count forwards and backwards to complete them.

-25 -24 -23 -22 -21 -20 -19 -18 -17 -16 -15 -14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

A.

					3	5	7

B.

-17°C	-12°C	-7°C					

C.

				4	9		19

D.

-31						17	25

E.

			-£6	-£2			

F.

					11°C	15.5°C	20°C

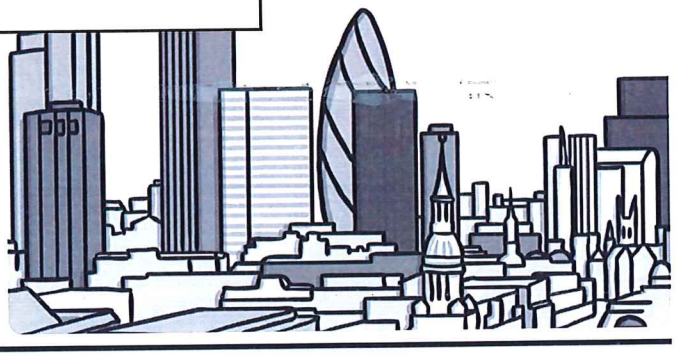
6. Look at the temperatures for these cities. Write the name of the warmest place in the box.

A.

New York	Moscow	Warmest
-3°C	-1°C	

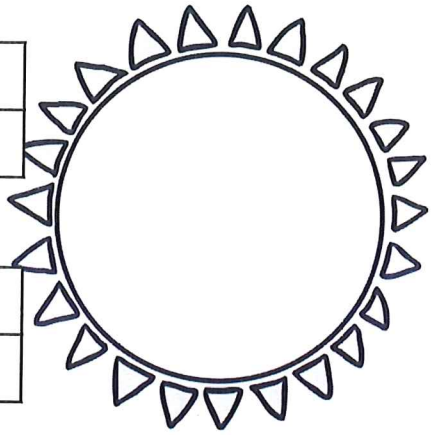
B.

Reykjavik	London	Warmest
-10°C	-3°C	



C.

Stockholm	Edinburgh	Warmest
-3°C	-1°C	

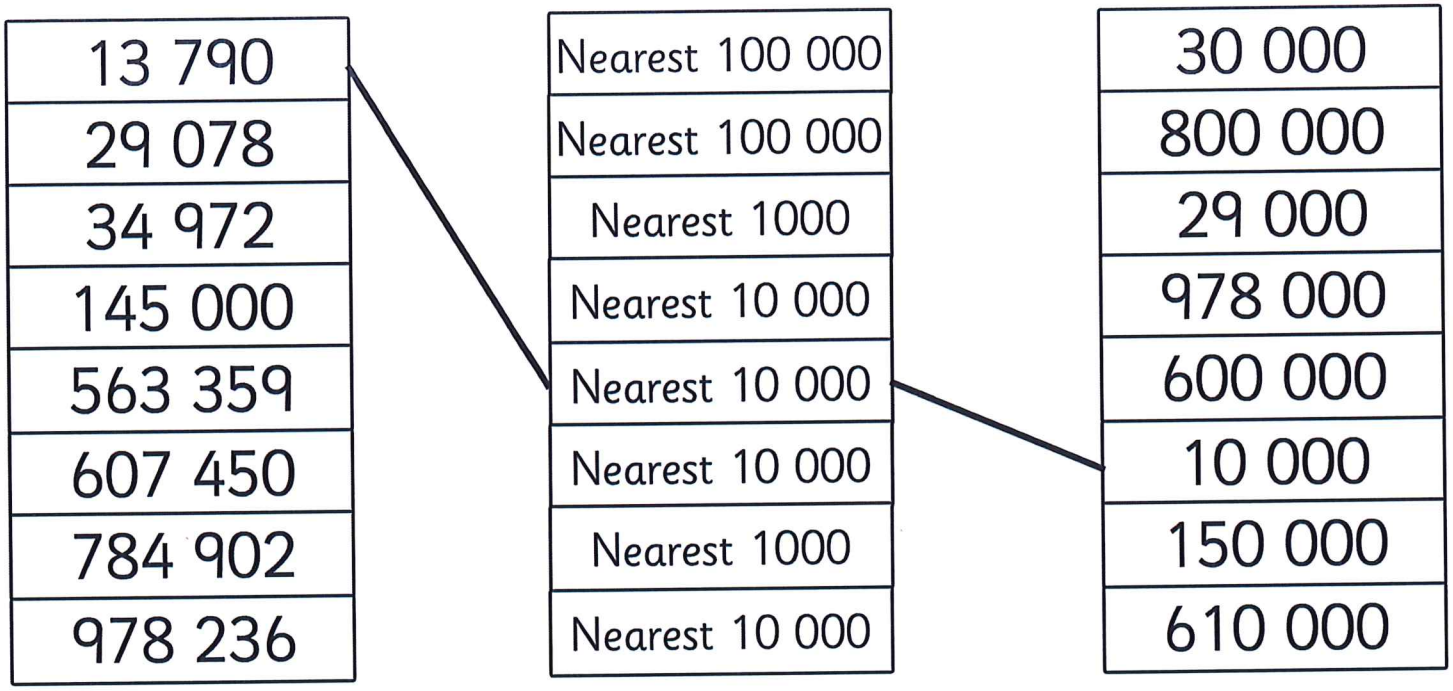


D.

Minsk	St. Petersburg	Warmest
-15°C	-17°C	

The Nearest 1000

Match the number, how the number is rounded, and the number to which it is rounded.
One has been done for you:



Challenge

Make your own for a friend to check. Some boxes have been completed or partly completed already. You need to include the arrows.

	nearest	
56 014	nearest	35 000
	nearest 10	
	nearest	
455 023	nearest 100	600 000
	nearest	
	nearest 1000	

The Nearest 10 000

Write the ten thousands either side of the given number and mark it approximately on the number line. Then circle the 10 000 to which the given number is closer. (Remember 5 (5000) goes up).

a) 43 930

b) 67 509

c) 30 591

d) 45 662

e) 89 014

f) 12 300

g) 24 677

h) 476 545

i) 135 314

j) 270 013

k) 349 718

l) 455 450

The Nearest 10 000 (2)

Round the following numbers to the nearest 10 000.

16 023 →	120 532 →	195 870 →
27 467 →	244 665 →	200 287 →
49 501 →	315 500 →	375 828 →
62 090 →	455 838 →	199 777 →
76 327 →	626 112 →	471 727 →
92 105 →	731 008 →	999 300 →

Round the following populations to the nearest 10 000.

Places	Population	to the nearest 10 000
Iceland	317 900	
Bahamas	346 000	
Malta	416 333	
Samoa	179 000	
Maldives	314 000	
Solomon Islands	536 000	
Guyana	761 000	
Cyprus	801 851	
Fiji	854 000	

The Nearest 100 000

Write the hundred thousands either side of the given number and mark it approximately on the number line. Then circle the 10 000 to which the given number is closer. (Remember 5 (50 000) goes up).

a) 302 456

b) 745 900

c) 201 489

d) 485 200

e) 350 891

f) 120 780

g) 540 400

h) 267 080

i) 782 000

j) 932 910

k) 590 800

l) 967 302

The Nearest 100 000 (2)

Round the following numbers to the nearest 100 000.

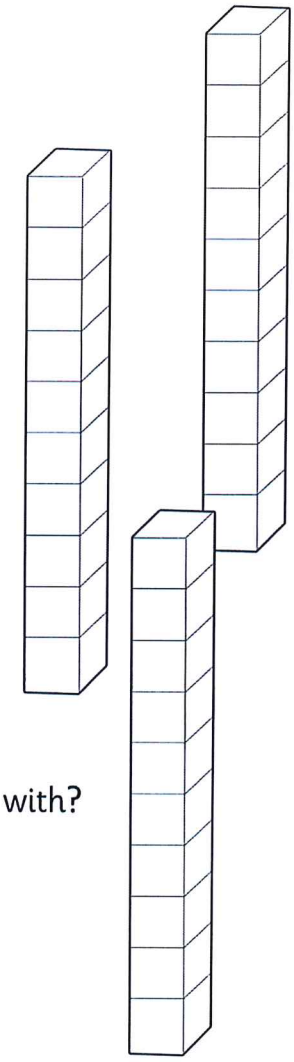
116 023 →	195 870 →
527 467 →	900 287 →
419 501 →	375 828 →
572 090 →	199 777 →
736 327 →	571 727 →
852 105 →	999 300 →

Round the following populations to the nearest 100 000.

Places	Population	to the nearest 100 000
Iceland	317 900	
Bahamas	346 000	
Malta	416 333	
Samoa	179 000	
Maldives	314 000	
Solomon Islands	536 000	
Guyana	761 000	
Cyprus	801 851	
Fiji	854 000	

Counting Forwards and Backwards in Powers of 10 Word Problems

Answer the following questions:



1. What number is 1000 more than 3683?

2. How many less is 5693 than 5703?

3. What number is 10 000 less than 1 234 508?

4. If I add 100 to a number I get 3467. What number did I start with?

5. 23 890 is how many more than 13 890?

6. What number is 100 more than 45 901?

7. Add 10 000 to 270 801.

8. If I subtract 1000 from a number I get 19 230. What number did I start with?

9. What number is 100 000 more than 671 023?

10. Subtract 1 000 000 from 30 782 901.

Write the following as calculations and solve them.

A. 7503 cars go over a bridge in February. In march, 1000 more cars go over the bridge than in February. How many go over the bridge in March?

B. There are 30 903 books in a mobile library collection, but 1000 of these are on loan. How many books are left in the library?

C. A girl wins £10 000 for winning a tennis competition. She has now won £35 600 in prize money altogether. How much had she won before winning the £10 000?

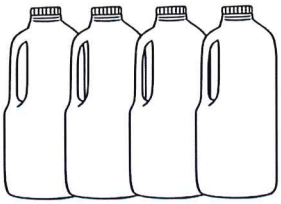
D. A car has 34 678 miles on the milometer, but it had already travelled 100 000 miles. How many miles has it travelled altogether?

E. A factory makes 305 800 glass bottles a day in March, which is 10 000 more than it made in February. How many bottles did it used to make each day in February?

The Nearest 10 000 and 100 000

Solve the following word problems, rounding the answer as instructed.

1. A supermarket sells 143 687 litres of milk in one month.
How many litres is this to the nearest 10 000 and nearest 100 000?

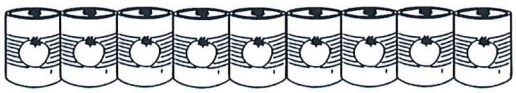


2. There are 487 245 spectators at all the Premier League football matches on a Saturday.
How many is this to the nearest 10 000 and nearest 100 000?

3. A newspaper reports that about 160 000 people attended a parade.
How is this rounded and what is the range of the precise attendance?

4. 529 876 adults and 225 621 children visit a zoo in one year.
To the nearest 10 000 and nearest 100 000, how many people visit the zoo altogether?

5. A supermarket has 534 348 tins of tomatoes at a distribution centre.
It sends out 67 782 in one shipment. To the nearest 10 000, how many will be left?



6. A call centre receives about 75 000 calls per day.
To the nearest 10 000, how many calls does it receive in a working week (5 days)?

7. A swimming pool has 324 923 swimmers in the main pool and 591 023 swimmers in the leisure pool in one year.
To the nearest 100 000, how many swimmers do both pools get over the whole year?

8. A lorry driver travels 256 349 miles in one year, and 289 012 miles in the following year.
To the nearest 10 000 and 100 000, how many miles does the driver travel in both years?

Challenge

What happens if you round the numbers in the questions, then calculate the answers?

Word Problems Involving Negative Numbers

I can solve word problems involving negative numbers

Answer these questions. Adding numbers to the blank number lines may help you.

1. The temperature at 6 p.m. is 8°C, at 6 a.m. the next morning the temperature has dropped to -7°C. How many degrees has the temperature fallen by?

2. If you point to 11 on a number line and then count back 18, which number do you get to?

3. The elevator in a skyscraper travels from floor 19 to the underground car park on level -4. How many floors has it descended?

4. An overdraft is a facility which means you can have a negative amount of money in your bank account. If a saver had a balance of -£19 and then paid £30 into his bank account, how much would he have available to spend?

5. In a quiz, a team scores 2 points for each correct answer and loses 5 points for each wrong answer. From the start of a game, a team gets 4 questions in a row correct, but then gets two questions wrong. How many points do they have?

6. The temperature in New York is 4°C when the Christmas lights are switched on. By 9 a.m. the next day, the temperature has fallen by 11°C. What is the new temperature?

7. Mrs. Jones buys a pair of skis and pays for them with her debit card. The skis cost £85 and she had £50 in her account. What is her new balance?

8. Mr. Davies overspends during the month of September and goes £247 overdrawn. How much does he have left after his October wages of £847 are paid into his account?

Roman Numerals Worksheet

Translate these Roman numerals. Don't forget to show your working out!

1. MD _____
2. MCD _____
3. XXXIV _____
4. CXVI _____
5. DCLX _____
6. CXIII _____

Write these numbers in Roman numerals.

1. 35 _____
2. 100 _____
3. 99 _____
4. 283 _____
5. 570 _____
6. 27 _____

Arrange these numbers in size order.

XXXV, XL, XXX, LX, LV, L, XLV, LXV

_____, _____, _____, _____, _____, _____, _____, _____

CL, CCC, CCL, C, CD, CC, L, CCCL

_____, _____, _____, _____, _____, _____, _____, _____

Count in hundreds from one hundred.

C, CC, ____, ____, **D,** ____, ____, ____, ____, ____

Count in five hundreds from five hundred.

D, ____, ____, ____, **MMD,** ____, ____

Complete these calculations.

1. CD + DC = _____
2. VI + IV = _____
3. XI + IX = _____
4. XL + LX = _____
5. CM + MC = _____
6. CX + XC = _____

Roman Numerals – Recognising Years

I can convert years written in Roman numerals.

The **rules** that must be followed for accurate use of Roman numerals are as follows:

1. Symbols are written from left to right in value order.
2. To avoid having four characters in a row, some characters can be subtracted from others when placed BEFORE them.
3. I placed before V or X indicates one less.
4. X placed before L or C indicates ten less.
5. C placed before D or M indicates a hundred less.

The seven basic Roman numerals in use are as follows:

I = 1
V = 5
X = 10
L = 50
C = 100
D = 500
M = 1000

This is how we would translate the year 1971

1000	900	70	1	**1971**
M	CM	LXX	I	**MCMLXXI**

1. Work out each of the following years in Roman numerals.

A.

1000	900	90	9	**1999**

B.

2000	0	0	5	**2005**

C.

1000	900	50	6	**1956**

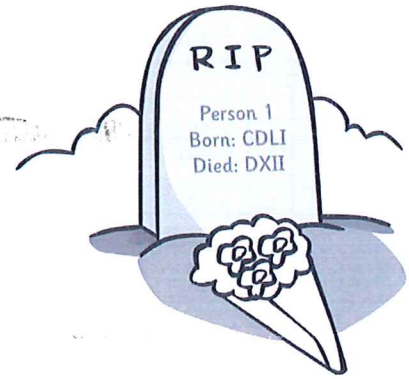
D.

1000	800	80	8	**1888**

2. Work out which year the following historical figures were born.

Who	Roman Numeral Year of Birth	Translation
 Marie Curie	MDCCCLXVI I	
 Winston Churchill	MDCCCLXXIV	
 Queen Elizabeth	MCMXXVI	
 John Lennon	MCMXL	
 You!		

Challenge: Can you work out how old these people were when they died and who lived the longest life?

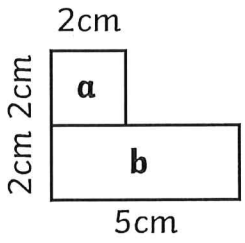


Area of Compound Shapes

I can calculate the area of compound shapes.

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

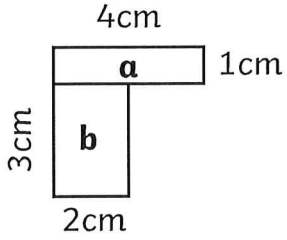
1.



Area a: _____ cm^2

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

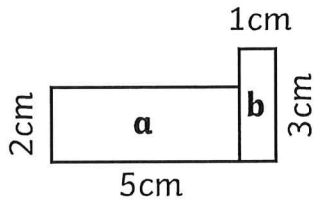
2.



Area a: _____ cm^2

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

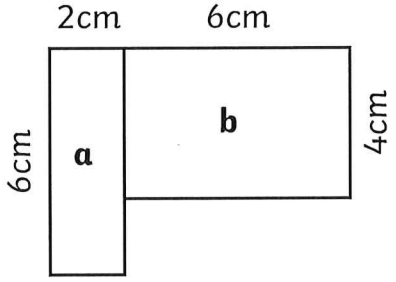
3.



Area a: _____ cm^2

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

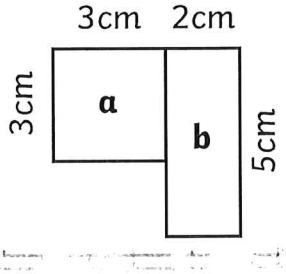
4.



Area a: _____ cm^2

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

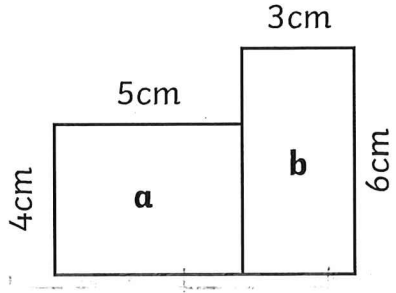
5.



Area a: _____ cm^2

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

6.



Area a: _____ cm^2

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

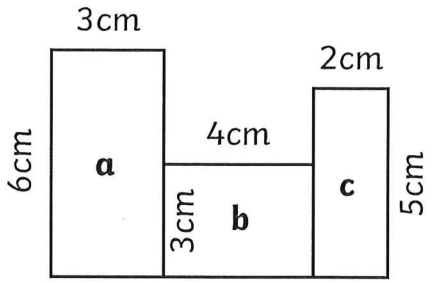
Note: Compound shapes are not to scale.

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.

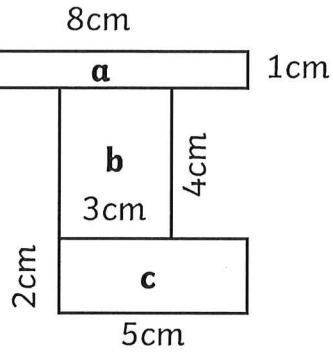
7.



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

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

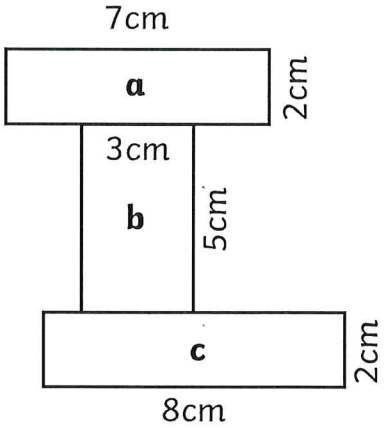
8.



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

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

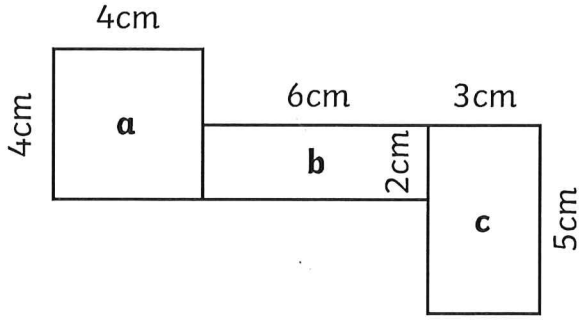
9.



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

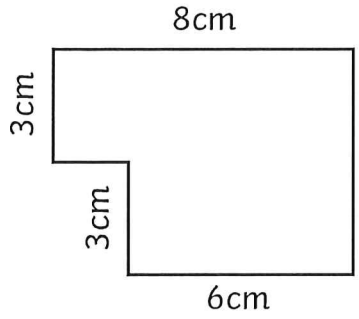
Note: Compound shapes are not to scale.

Area of Compound Shapes

I can calculate the area of compound shapes.

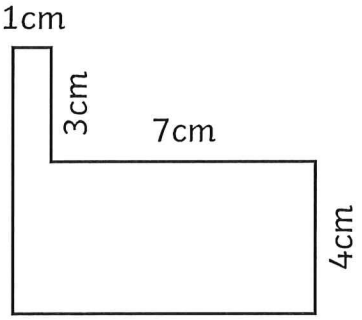
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.

1.



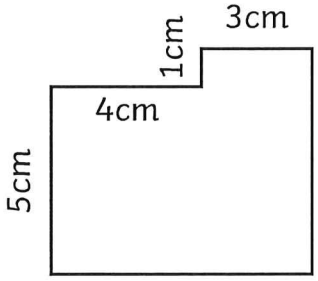
Total: _____

2.



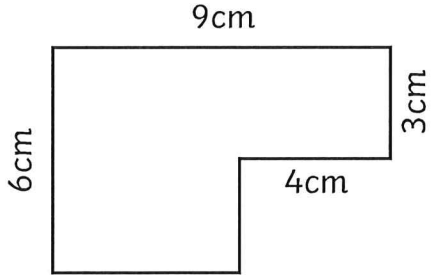
Total: _____

3.



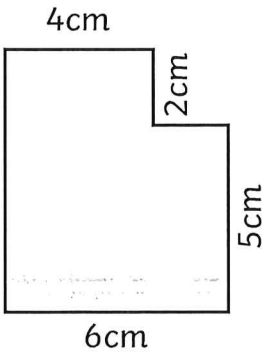
Total: _____

4.



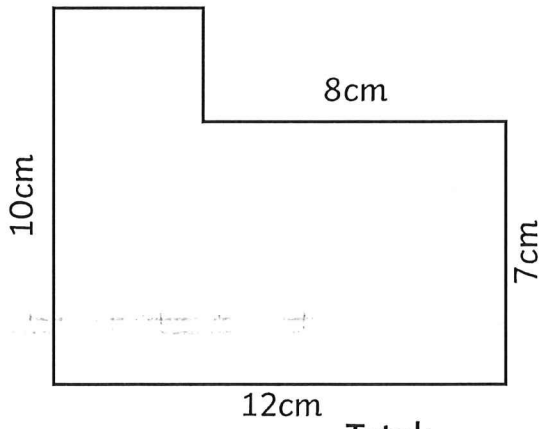
Total: _____

5.



Total: _____

6.



Total: _____

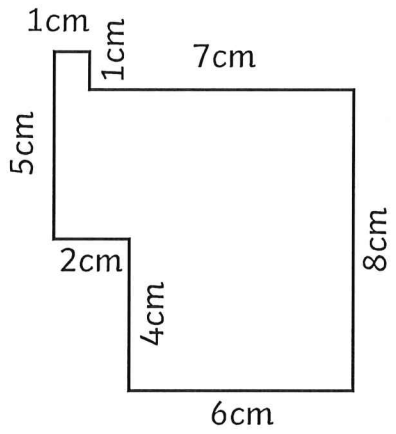
Note: Compound shapes are not to scale.

Area of Compound Shapes

I can calculate the area of compound shapes.

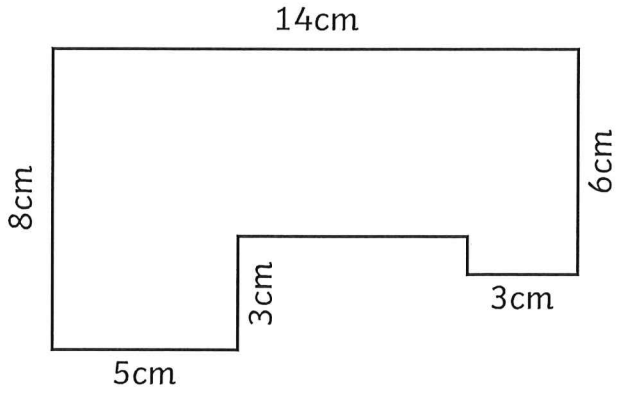
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.

7.



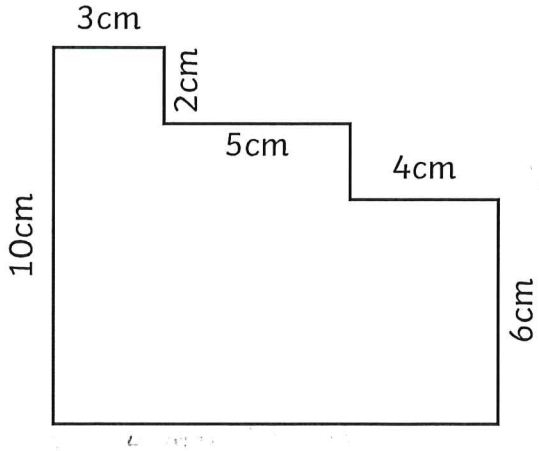
Total: _____

8.



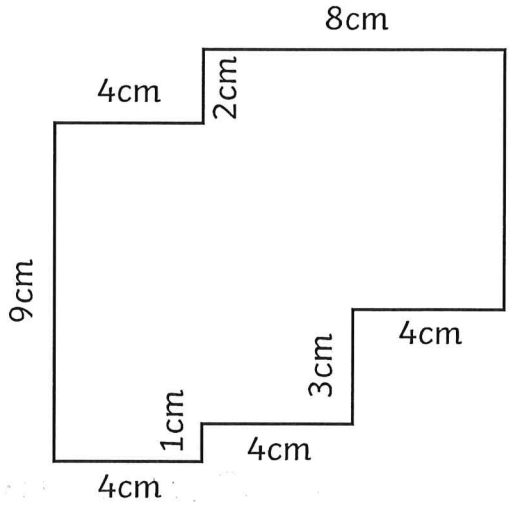
Total: _____

9.



Total: _____

10.



Total: _____

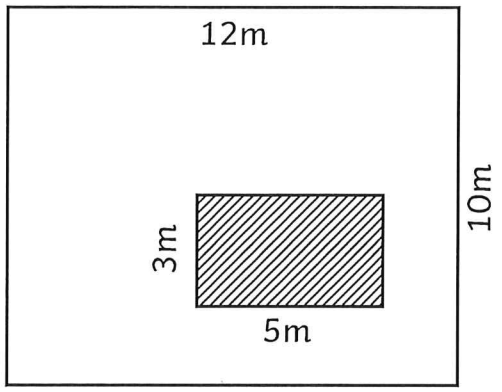
Note: Compound shapes are not to scale.

Area of Compound Shapes

I can calculate the area of compound shapes.

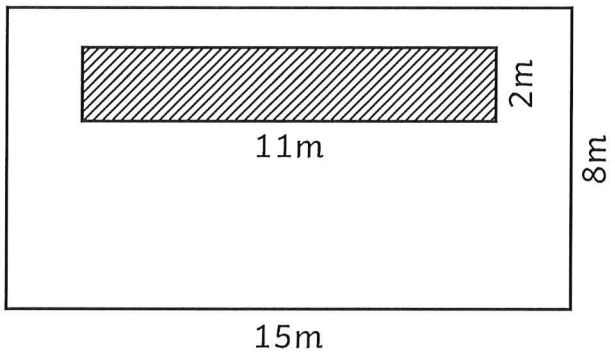
Identify the shapes where the area can be calculated. Calculate the area of each compound shape.

1.



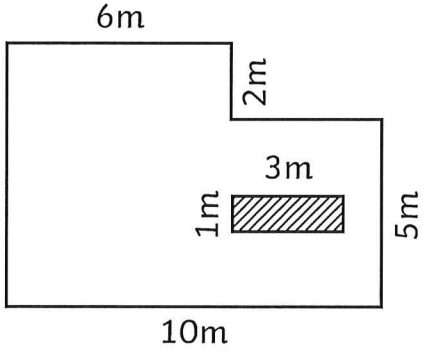
Total: _____

2.



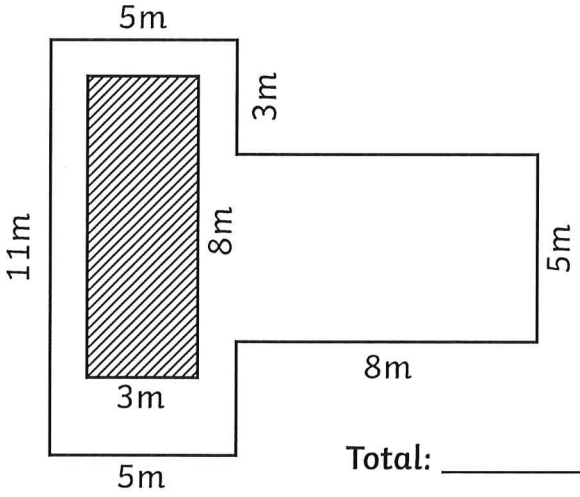
Total: _____

3.



Total: _____

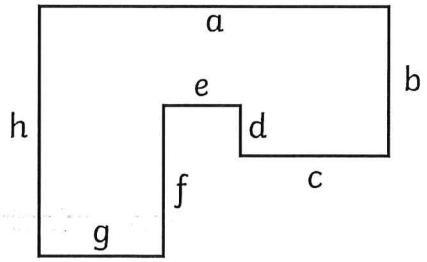
4.



Total: _____

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

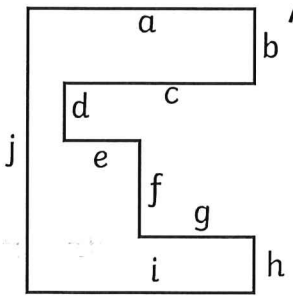
5. Area: $98m^2$



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.

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**

Formal Method of Short Division with 2 Digit Numbers

LO: I can use a formal method of division

1. 69 ÷ 3 =

2. 88 ÷ 4 =

3. 90 ÷ 5 =

4. 76 ÷ 4 =

5. 72 ÷ 3 =

6. 70 ÷ 5 =

7. 24 ÷ 2 =

8. 56 ÷ 4 =

9. 36 ÷ 3 =

10. 65 ÷ 5 =

11. 96 ÷ 4 =

12. 90 ÷ 6 =

13. 96 ÷ 8 =

14. 96 ÷ 6 =

15. 88 ÷ 8 =

16. 80 ÷ 4 =

17. 95 ÷ 5 =

18. 92 ÷ 4 =

19. 46 ÷ 2 =

20. 78 ÷ 6 =

21. 92 ÷ 4 =

22. 84 ÷ 4 =

23. 72 ÷ 3 =

24. 70 ÷ 7 =

25. 88 ÷ 4 =

26. 80 ÷ 5 =

27. 98 ÷ 7 =

28. 66 ÷ 3 =

29. 84 ÷ 4 =

30. 91 ÷ 7 =

Teamwork

I can use short division to solve problems.

The children of Dove Primary School have their sports day today. They are all really excited!

The teachers want to put them into teams. There are **79** children in the school.

Use short division to work out the answers to these problems.

1. How many teams will there be if they are sorted into teams of 3 children? _____
   Will there be any children left who are not in a team of 3? _____

2. What if they are sorted into teams of 4 children? _____
   Will there be any children left who are not in a team of 4? _____

3. What if they are sorted into teams of 6 children? _____
   Will there be any children left who are not in a team of 6? _____

4. What if they are sorted into teams of 8 children? _____
   Will there be any children left who are not in a team of 8? _____

Teamwork

5. How many teams will there be if they are sorted into teams of 9 children? _____
   Will there be any children left who are not in a team of 9? _____

6. The teachers buy each child an ice cream to have after the races. The ice creams come in packs of 5. How many packs will they need to buy? _____

7. Each child needs a medal for taking part. Medals come in packs of 12. How many packs does Dove Primary School need? _____

8. If each bottle of squash makes 20 cups of orange juice and the school buys 3 bottles, will there be enough for all of the children to have a drink? _____

9. Can you make up some of your own word problems about your school sports day?

Four Digit Division with Remainders

1. $8\overline{)4593}$
2. $5\overline{)3901}$
3. $3\overline{)8288}$
4. $6\overline{)1291}$
5. $9\overline{)2210}$
6. $5\overline{)8302}$
7. $4\overline{)7401}$
8. $9\overline{)3231}$
9. $5\overline{)7774}$
10. $6\overline{)8900}$
11. $12\overline{)3891}$
12. $17\overline{)5594}$
13. $24\overline{)7589}$
14. $31\overline{)8781}$
15. $38\overline{)3289}$
16. $46\overline{)4028}$
17. $16\overline{)9482}$
18. $56\overline{)8492}$
19. $18\overline{)2401}$
20. $44\overline{)9991}$

Multiplying 2-Digit Numbers by 1-Digit Numbers

1. 24 × 4 = _____

2. 22 × 5 = _____

3. 18 × 5 = _____

4. 26 × 3 = _____

5. 12 × 5 = _____

6. 48 × 2 = _____

7. 41 × 9 = _____

8. 31 × 7 = _____

9. 44 × 7 = _____

10. 32 × 7 = _____

11. 62 × 3 = _____

12. 66 × 4 = _____

13. 82 × 4 = _____

14. 87 × 8 = _____

15. 94 × 8 = _____

16. 53 × 8 = _____

17. 85 × 4 = _____

18. 75 × 3 = _____

19. 68 × 6 = _____

20. 78 × 7 = _____