Parent Guide

@twinklparents

We're excited to share this activity with you. If you are interested in finding more engaging, fun and interesting activities for you and your children, then check out these links to different areas of the Twinkl Parents website.

games

crafts

puzzles

experiments

word searches

What is this resource and how do I use it?

This revision booklet covers all the important curriculum objectives for mathematics for Year 5. This is the perfect way to get your children practising in preparation for a maths exam. You can also encourage your child to complete one task per day, or use the whole booklet in one session.

What skills does this practise?

- Place value
- Four Operators
- Measurement
- Statistics

Further Activity Ideas and Suggestions

For some more targeted learning activities in areas where your child might need more support, take a look at our Maths Area on the Parents' Hub.

Parents Blog

Twinkl Kids' TV

Homework Help

twinkl Parents Hub

Maths Revision Practise Booklet

This booklet belongs to:

Please make sure that you print this resource at 100% so that all measurements are correct.
To do this, follow the relevant steps below.

Adobe Reader or Adobe Acrobat

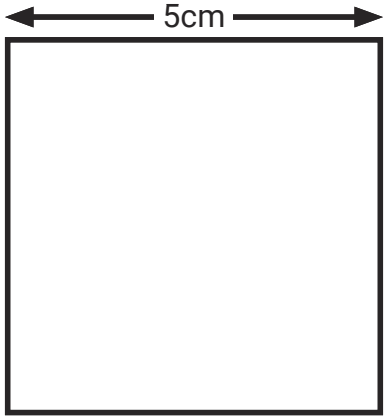
- Adobe Reader is a free PDF viewer, from Adobe. To install a copy of Adobe Reader, go to https://get.adobe.com/uk/reader/.
- Once Adobe Reader is installed, open your PDF.
- Go to File>Print.
- Under 'Page Sizing & Handling', select 'Size'.
- From here, make sure that 'Actual Size' is selected.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.

Foxit Reader

- Go to File>Print.
- Set the 'Scaling' to 'None'.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.

Web Browser

- If printing from a web browser, such as Chrome, Firefox or Microsoft Edge make sure that your printer is set to print at 100%, either by unticking 'Fit to Page' or selecting 'Actual Size'.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.



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4. Addition and Subtraction
6. Multiplication and Division
11. Fractions
17. Measurement
22. 2D Shapes
24. 3D Shapes
25. Angles
28. Symmetry
29. Geometry - Position and Direction
31. Statistics

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?

   _____ _____

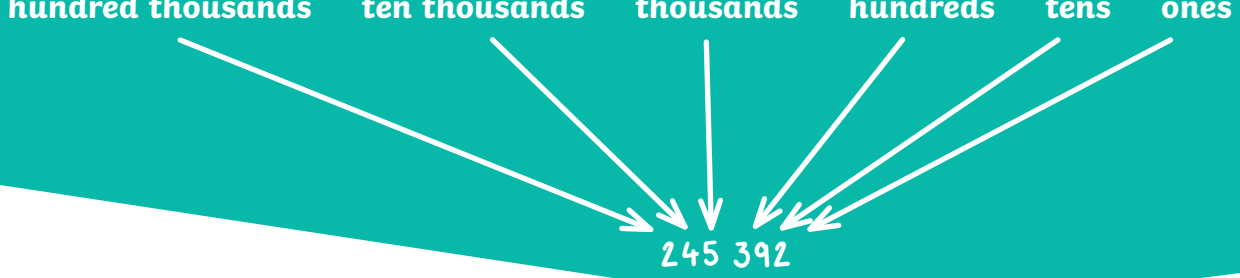
3. Count forwards and backwards through zero

   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.

Number and Place Value

Compare and Order Numbers

Compare using <, > or =

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

   141 141 > _____

   144 114 = _____

   501 243 < _____

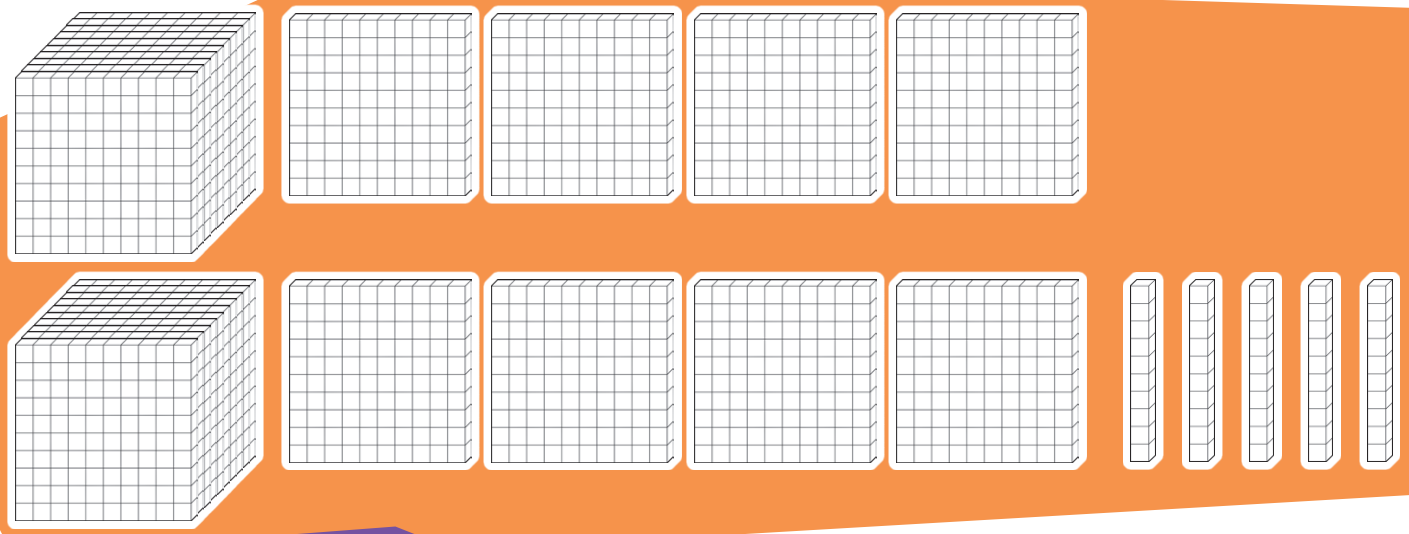
6. Order the following numbers from largest to smallest:

   Smallest 121 211 11 112 122 211 11 211 122 121 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 _____

4 Number and Place Value

Read and Write Numbers in Numerals and Words 1

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

_____

_____

Addition and Subtraction

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 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 = _____

Multiplication and Division

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

23. Use formal written methods to multiply:

			2	7
		x		4
		3	8	2
	x			7
	2	4	7	1
x				6

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

			2	7
		x	1	4

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

	4	7	6			5	4	8	7		

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

$\square \times 3 = 45$ or $56 \div \square = 14$

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

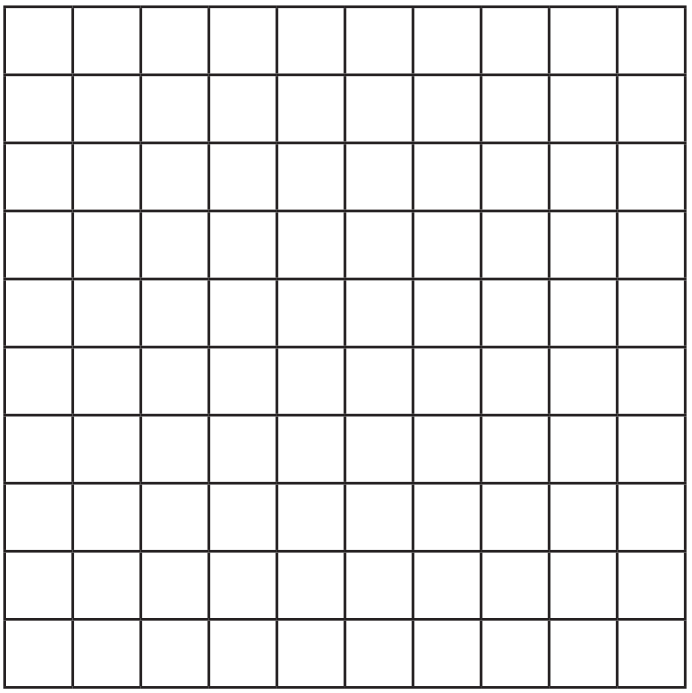
27. 12 pizzas are cut into quarters. Into how many pieces will all the pizzas be cut?

_____

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? _____

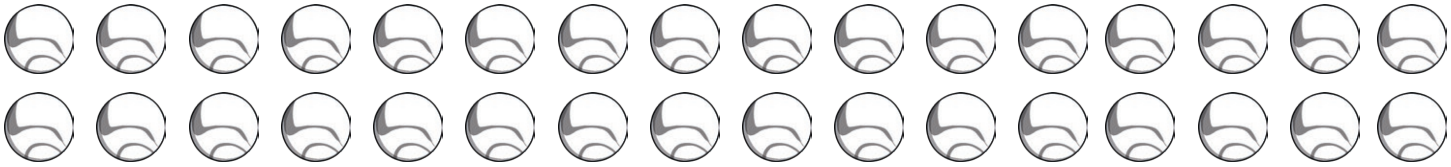
29. 120 pencils are shared equally between 3 classes. How many pencils will they each receive?



Fraction of a Set of Marbles

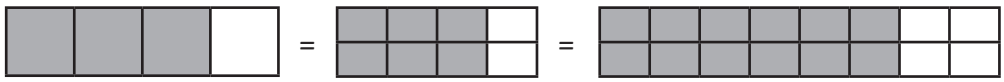
Fractions

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



Equivalent Fractions

31. 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															
$\frac{1}{3}$				$\frac{1}{3}$				$\frac{1}{3}$							
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$					
$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$	$\frac{1}{12}$				
$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$	$\frac{1}{24}$

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

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

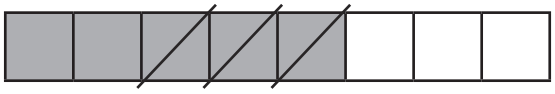
Fractions

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

33. 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

35a) 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:

$\frac{1}{5} \square \frac{3}{5}$

$\frac{5}{8} \square \frac{1}{4}$

Mixed Numbers and Improper Fractions

36. Write the improper fraction:

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

Fractions

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 ÷ 10 = ____ 2 ÷ 100 =_____ 25 ÷ 10 = _____ 25 ÷ 100 = _____

Fractions

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?

Fractions

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?

1

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?

8

Knowing Percentage and Decimal Equivalents

46. Order the following from smallest to largest:

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

4

Measurement

Estimate, Measure, Compare, Add and Subtract

Lengths (mm/cm/m)

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

_____

This line is _____cm or _____mm long.

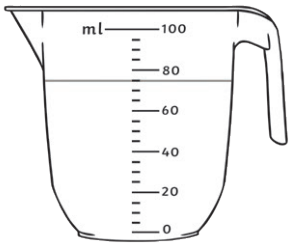
Mass (g/kg)

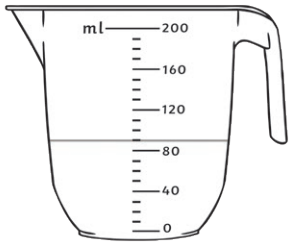
Measure the mass of objects using different scales

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:





Measurement

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:

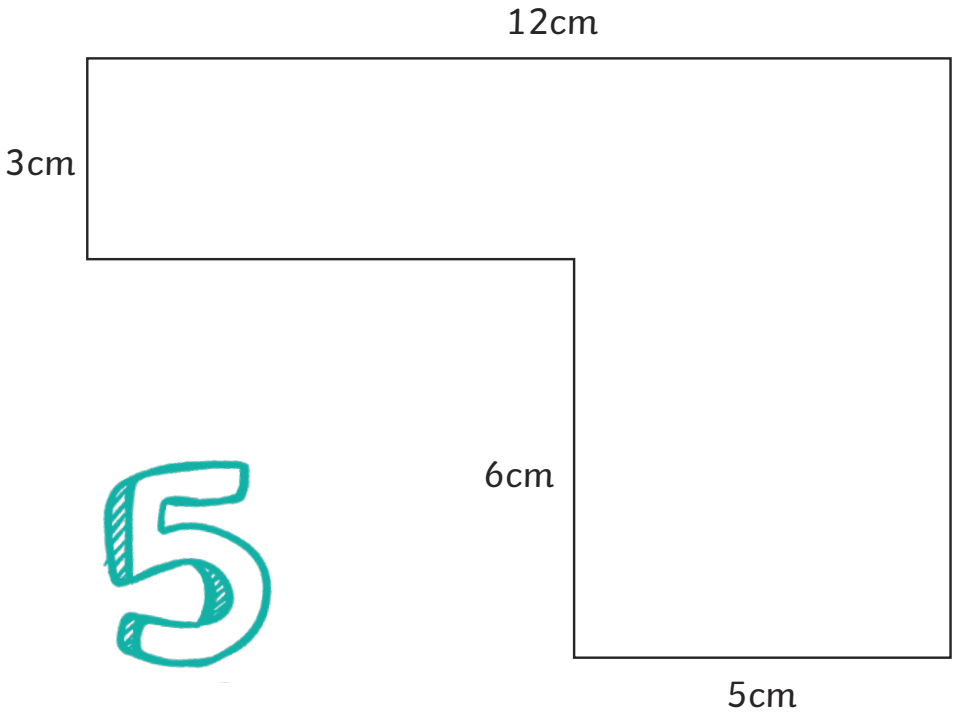
8cm

3cm

Perimeter = _____cm.

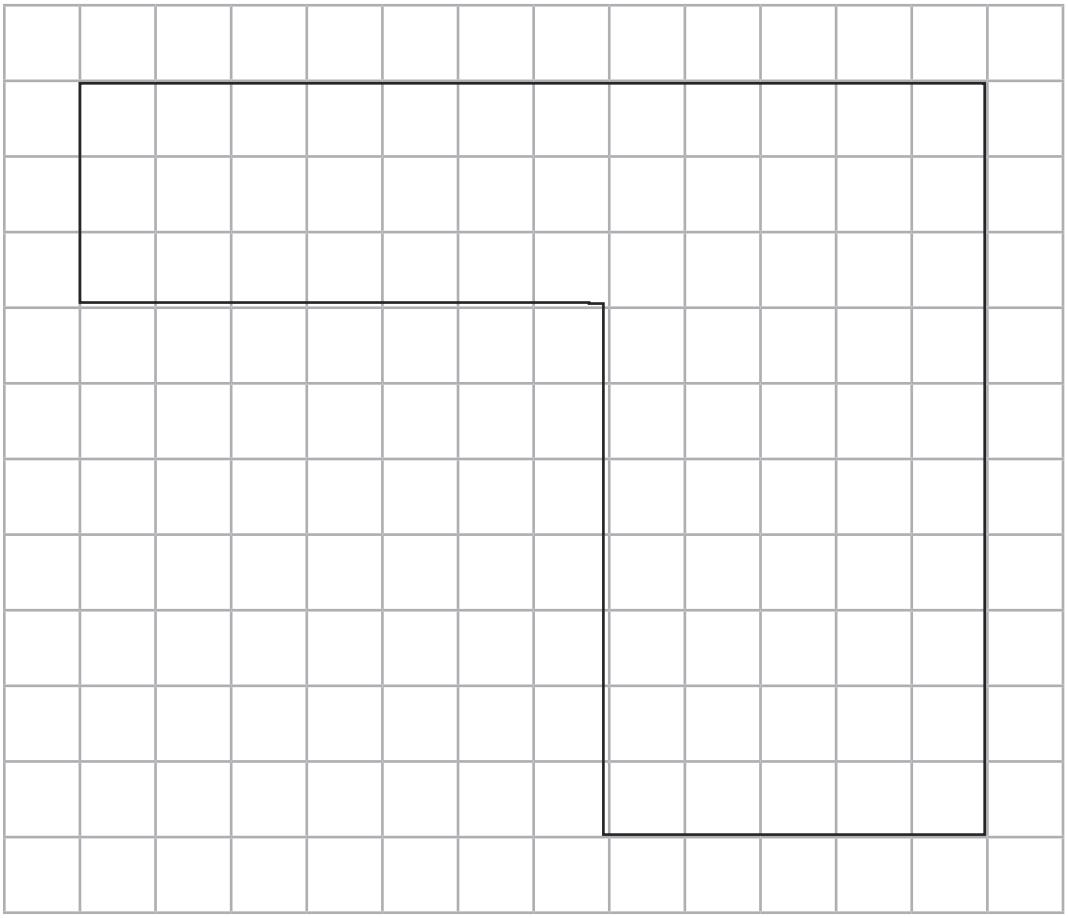
6 Measurement

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



Perimeter = _____cm.

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

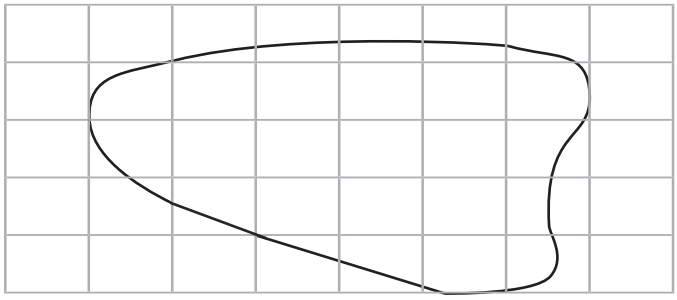


Area = _____cm²

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

Area = _____cm × _____cm = _____cm²

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 one hour and five 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**

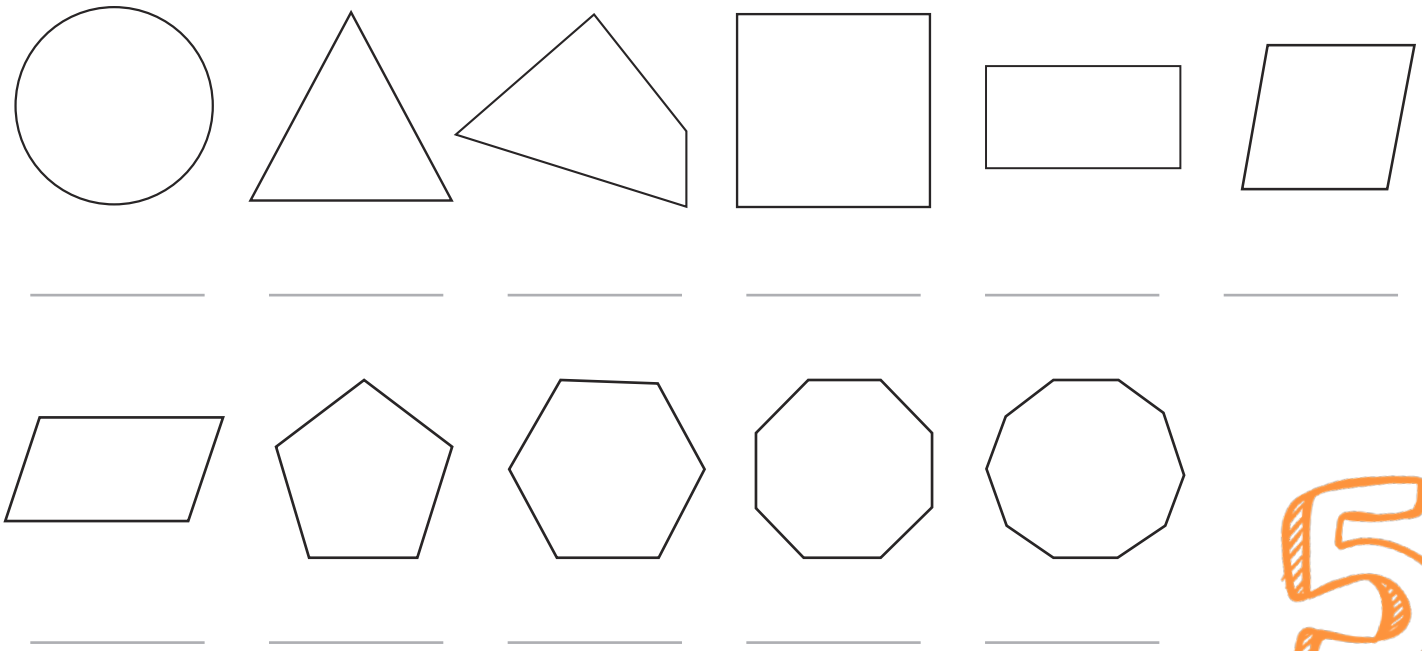
Solve Problems

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?

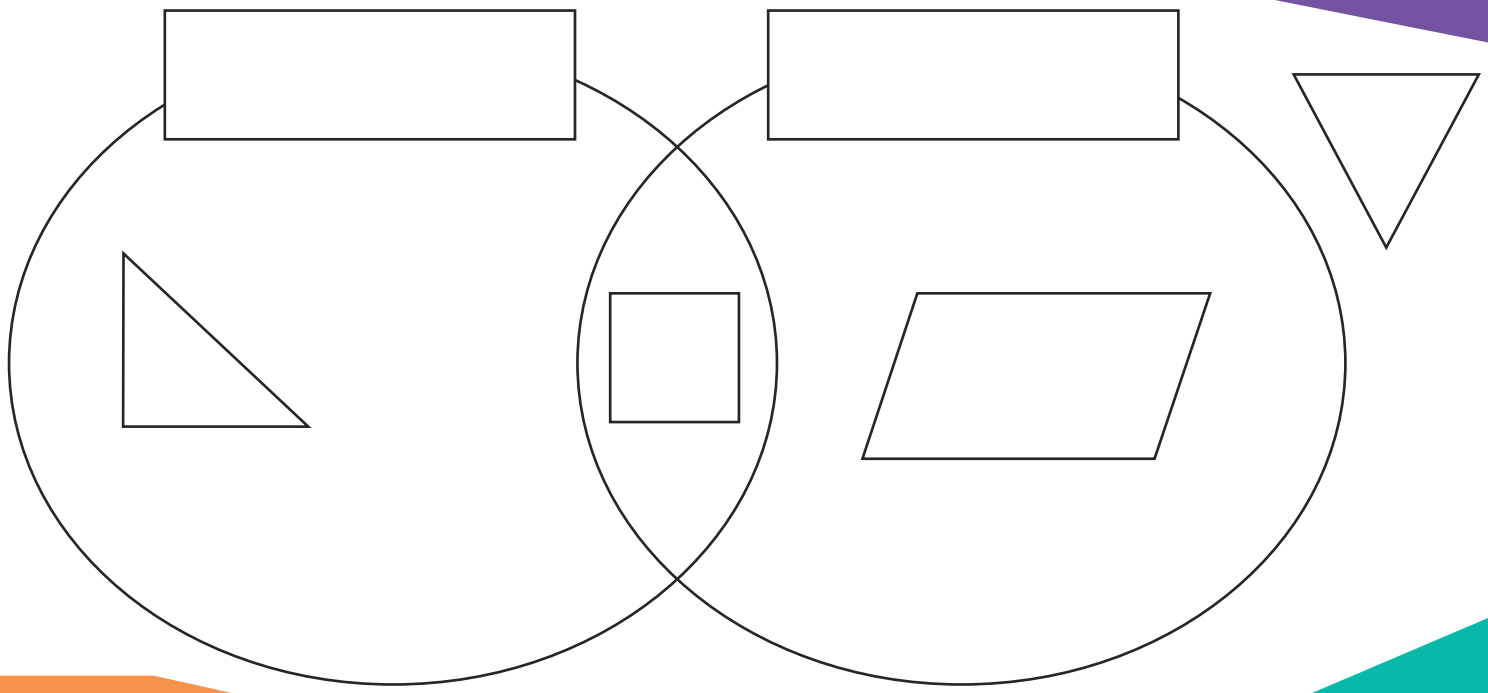
2D Shapes

56. Label the shapes.



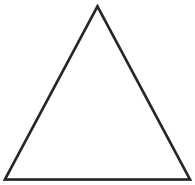
57. Draw a square on 1cm squared paper with sides of 4cm.

58. Write suitable titles for this Venn diagram:

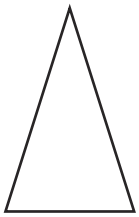


Triangles

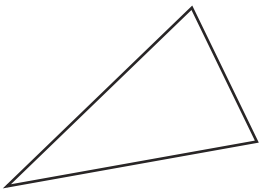
59. Label the triangles.



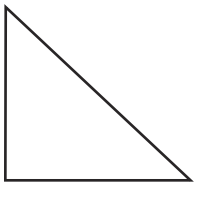
_____ (all sides and angles equal)



_____ (2 sides and angles equal)



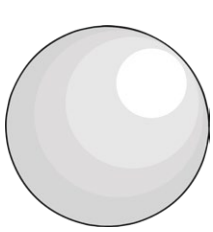
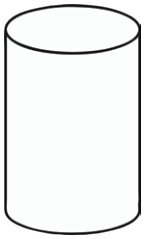
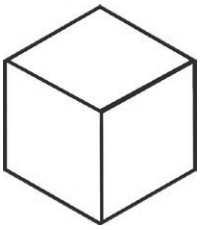
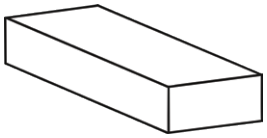
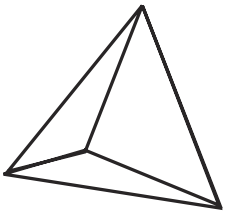
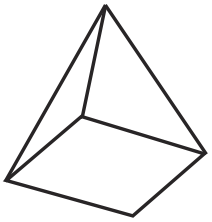
_____ (no sides and angles equal)

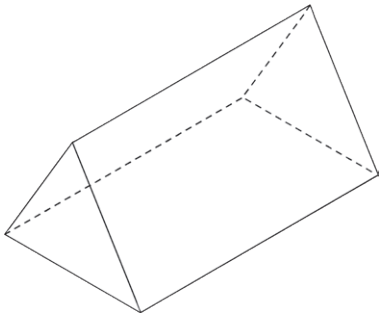
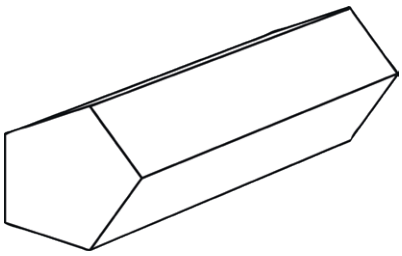
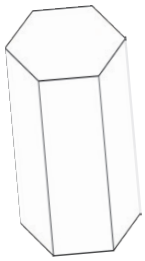


_____ (one angle a right angle)

3D Shapes

60. Label the shapes:

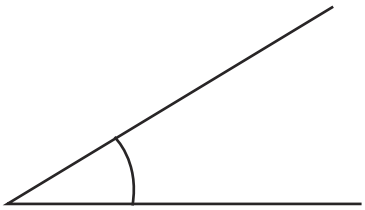




Recognise 2D representations and make models from modelling materials

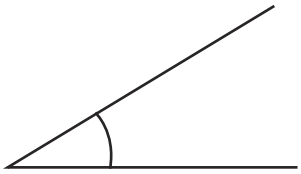
Angles

61. Complete the statements:

An _____ measures a turn.



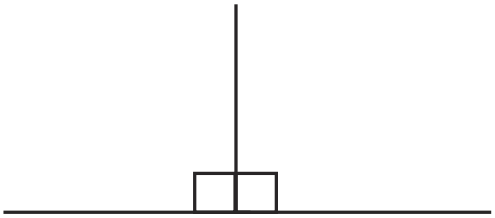
An _____ angle is less than a right angle (90°).



A _____ _____ is the corner of a square.

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

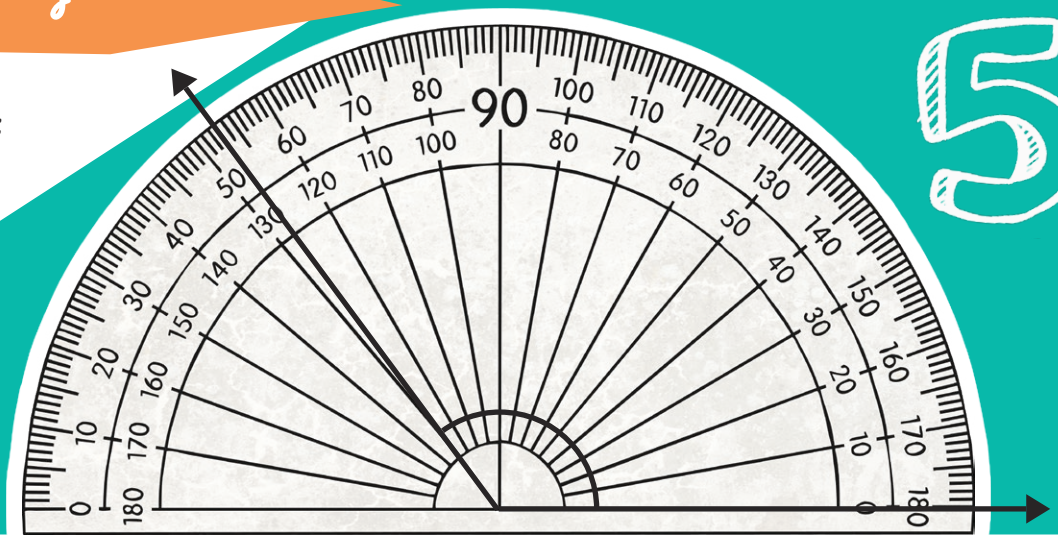
_____ right angles make a straight line.



Draw and Measure Angles

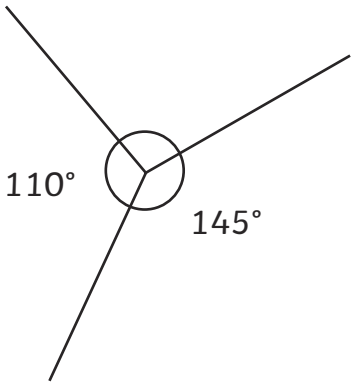
62. a) Measure the angle:

_____

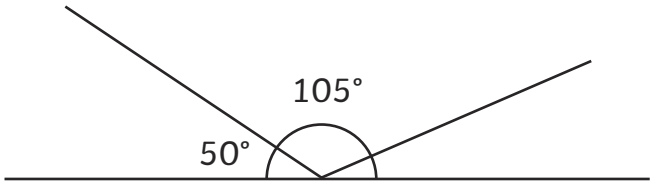


Angles

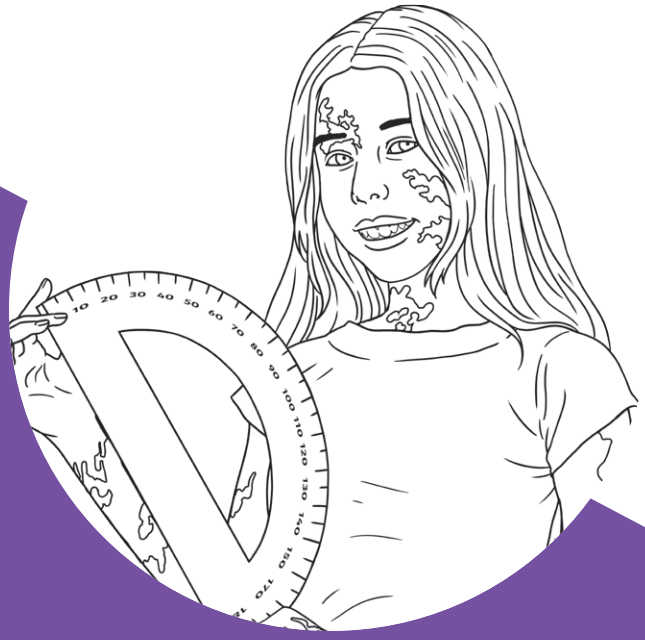
b) Calculate the missing angles:



c)



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



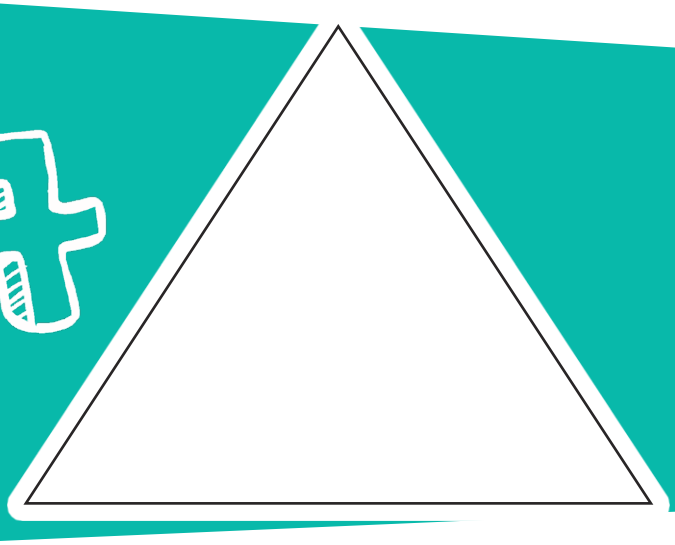
Angles

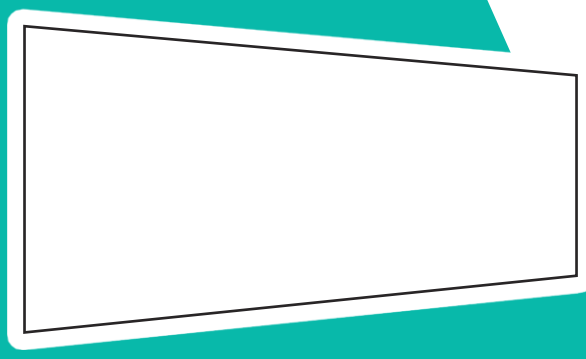
63. Label the lines using the word bank:

vertical
parallel
horizontal
perpendicular

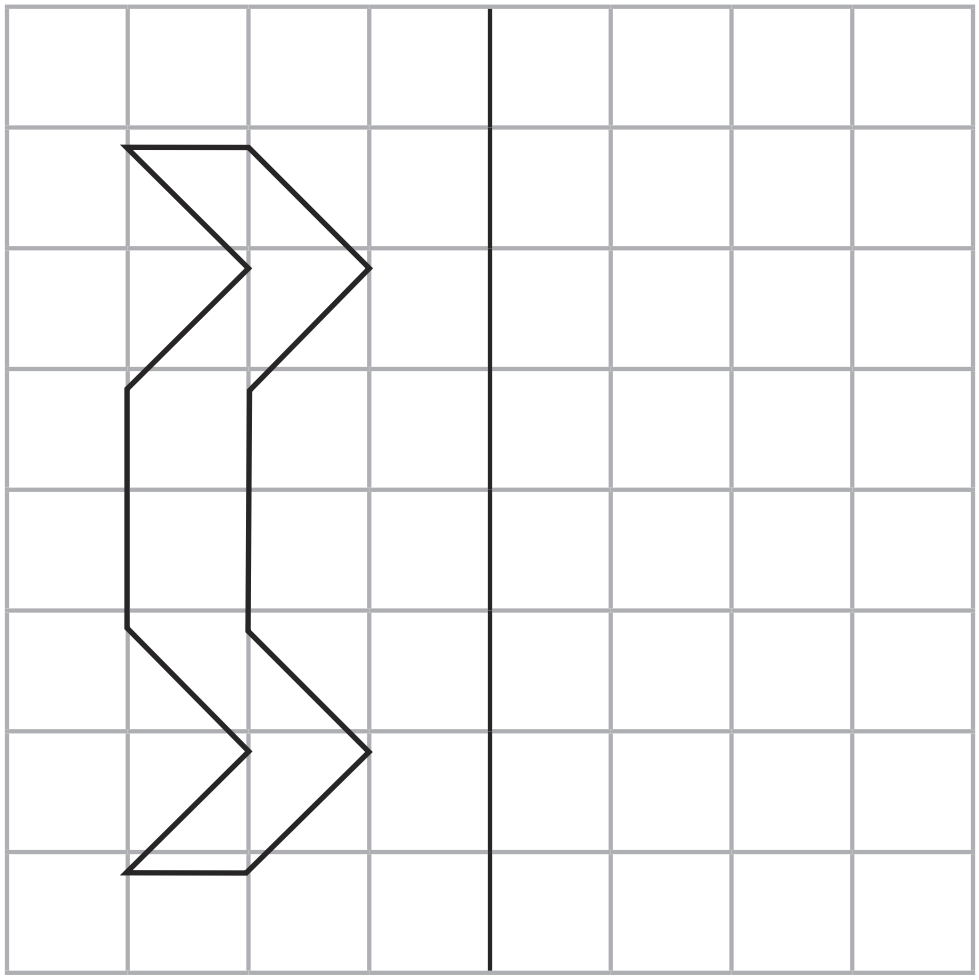
Symmetry

64. Mark the lines of symmetry in these shapes:

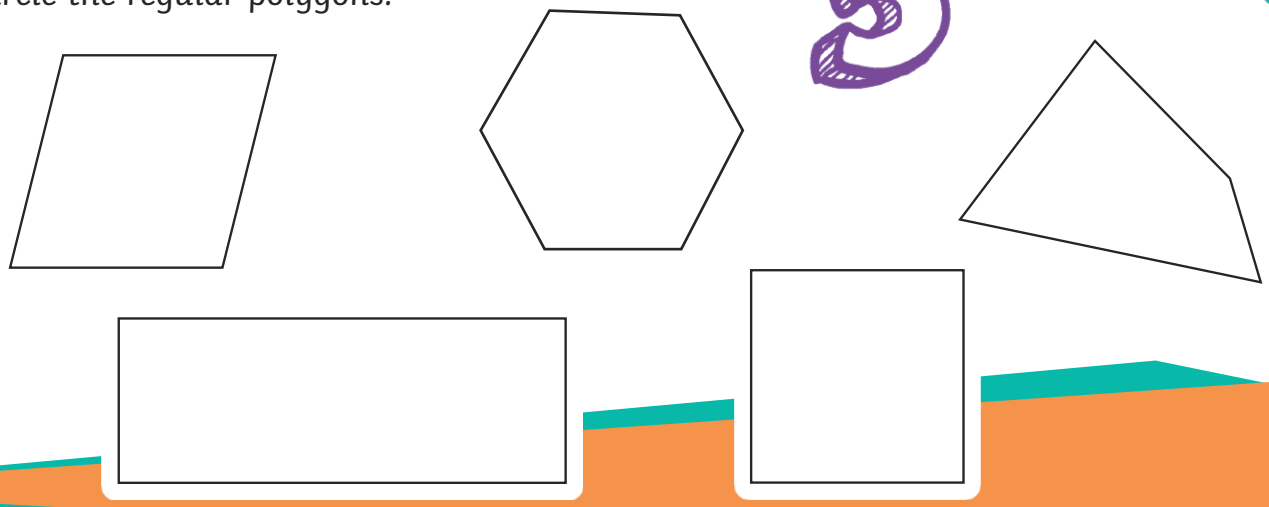




Complete the symmetrical figure:

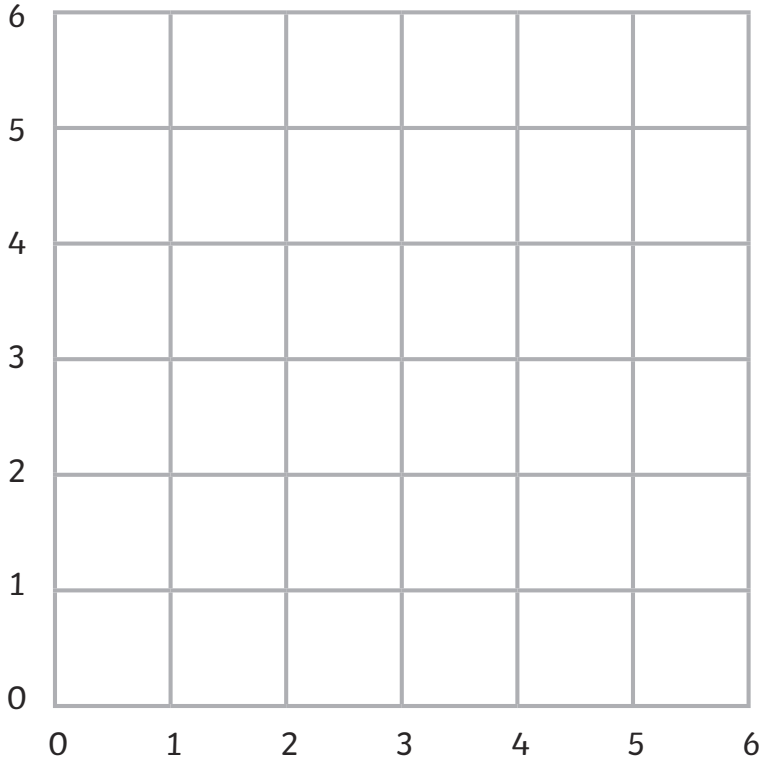


65. Circle the regular polygons:



Geometry – Position and Direction

Coordinates



66. Label A, B and C.
The coordinates are:
A (1,3)

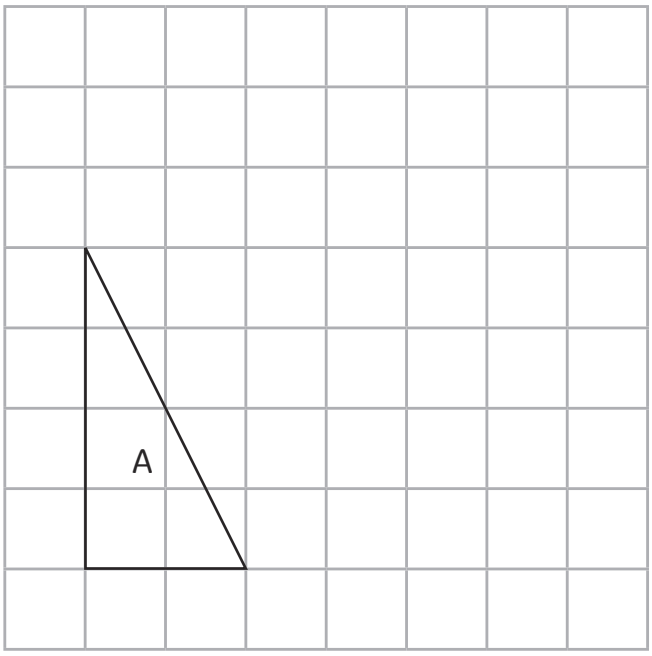
B (2,4)

C (4,2)

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

1 Geometry – Position and Direction

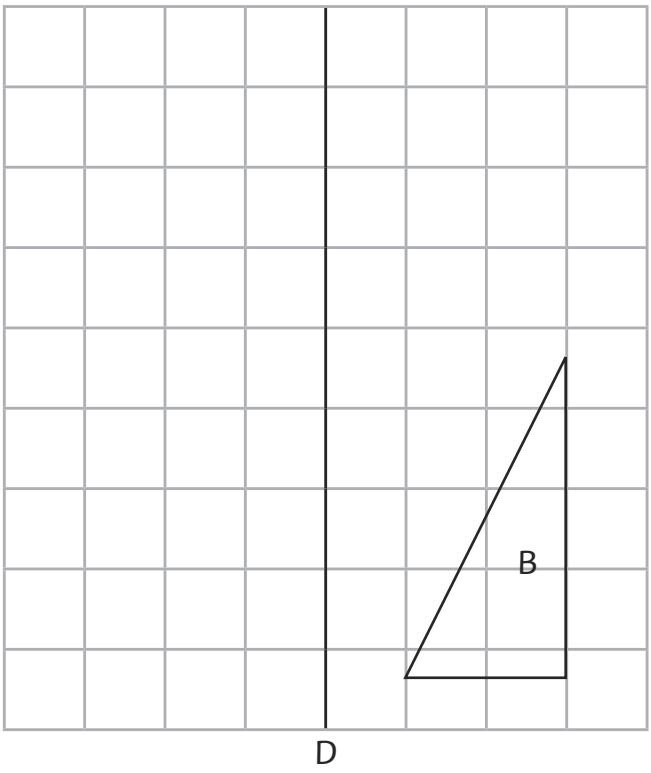
Translation



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

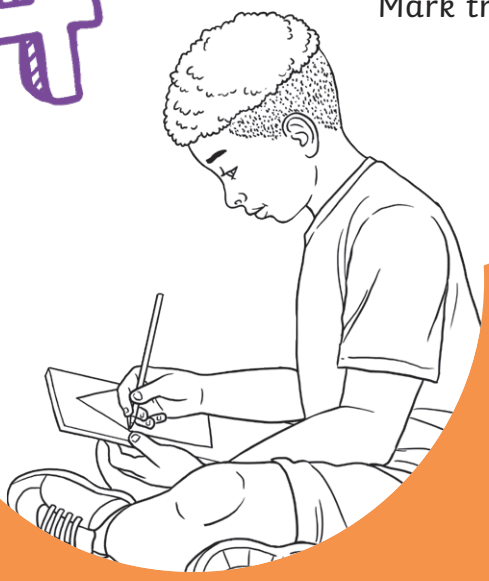
Mark triangle B

Reflection



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

Mark triangle A

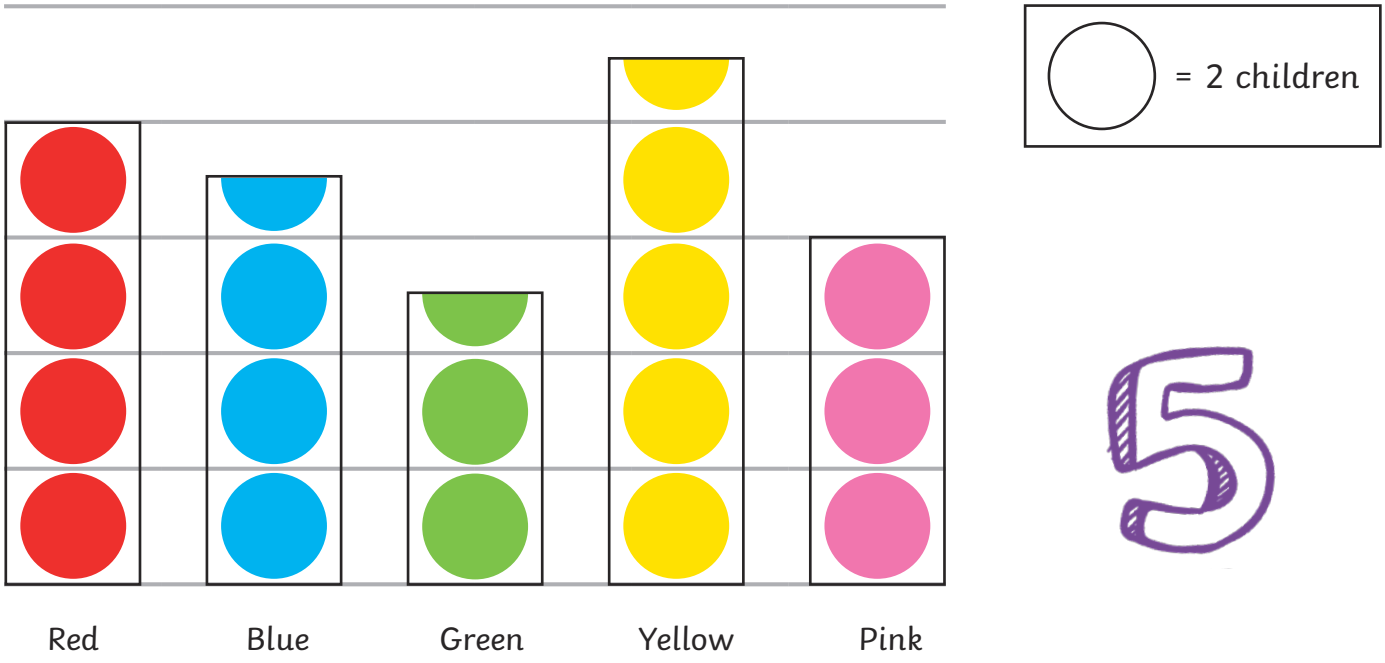


3 Statistics

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

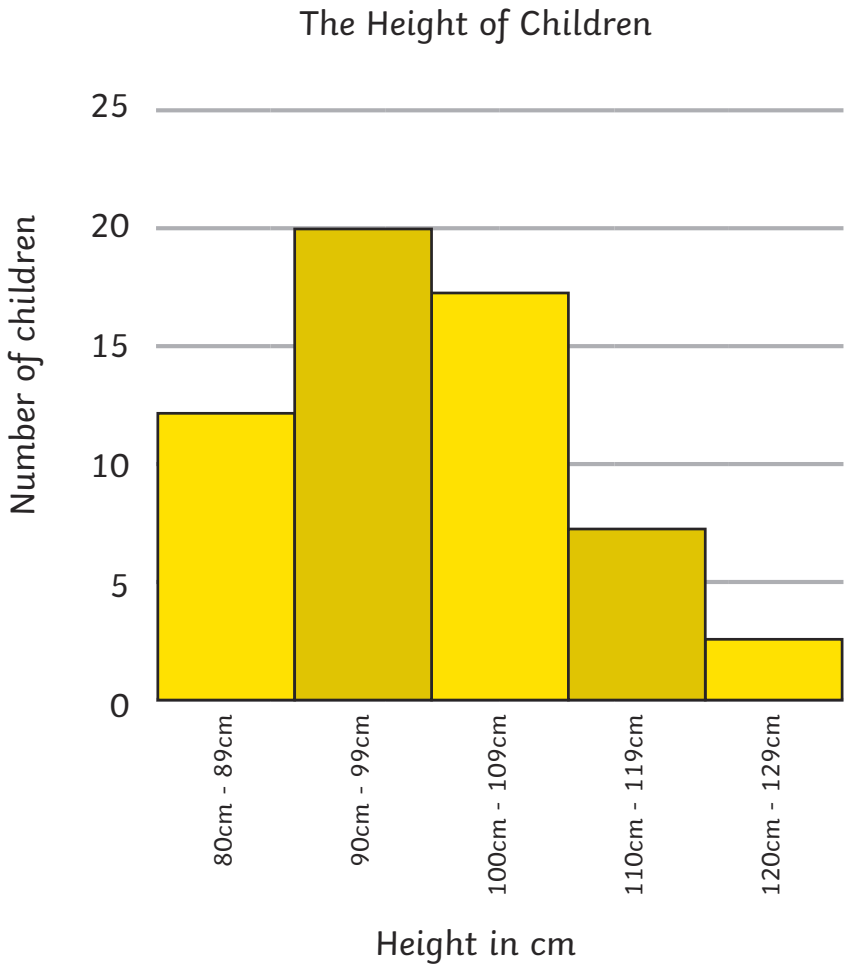
Pictograms

Favourite Colour



a) How many children chose their favourite colour? _____

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



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

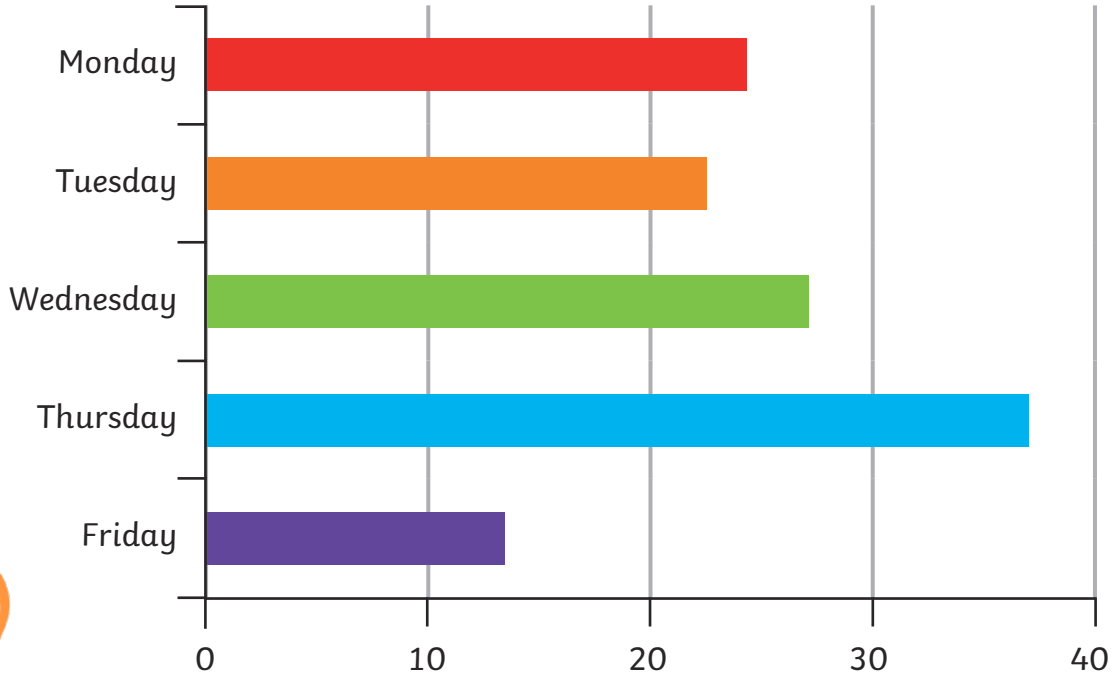
Tables

	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

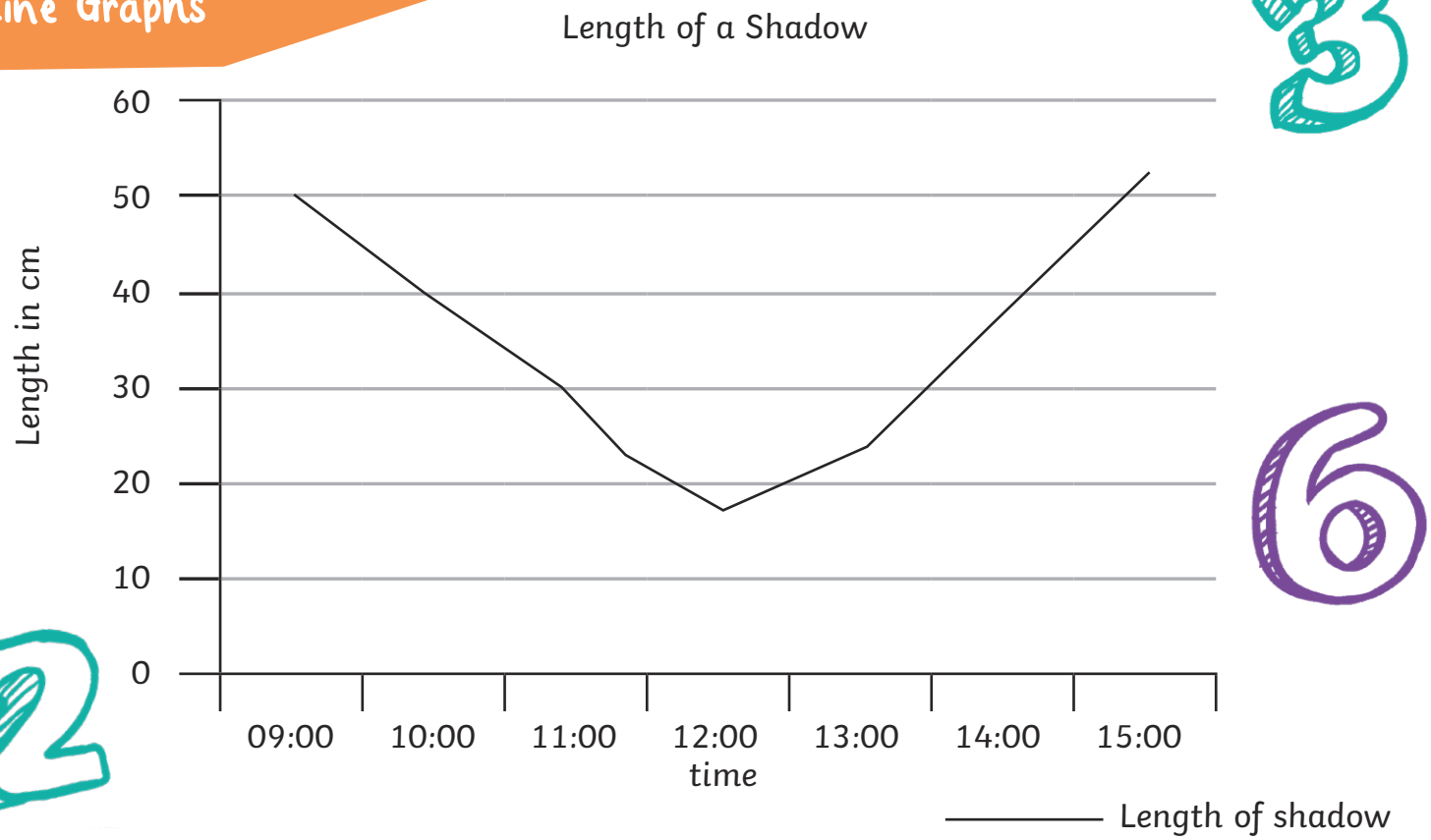
d) Which chocolate bar is the most popular? _____

Time Graphs

Number of Children Who Have a School Meal



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



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? _____

Number and Place Value Answers

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, 49, 56, 63, 70, 77

   625, 600, 575, 550, 525, 500, 475, 450, 425, 400

   57 382, 67 382, 77 382, 87 382, 97 382, 107 382, 117 382

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?

1802 **4249**

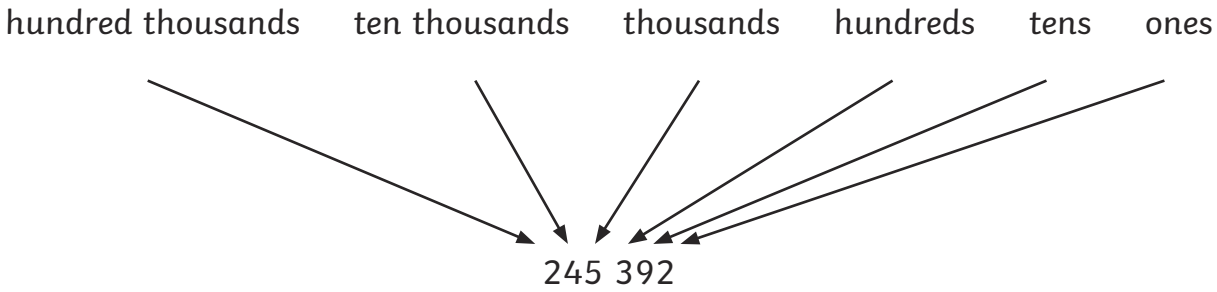
3. Count forwards and backwards through zero

   Continue the sequence:

   6, 5, 4, 3, 2, 1, 0, -1, -2, -3 **-4, -5, -6, -7, -8**.

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 > _____ **accept answers less than 141 141**

   144 114 = _____ **accept only 144 114**

   501 243 < _____ **accept answers more than 501 243**

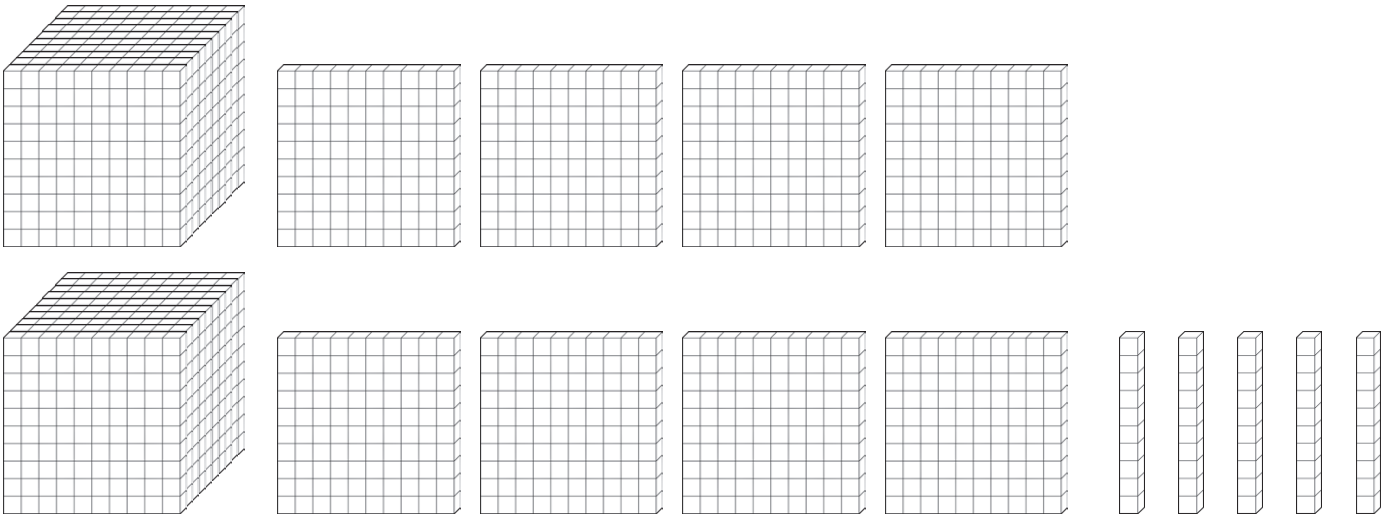
6. Order the following numbers from largest to smallest:

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

Identify, Represent and Estimate

Use models and representations of numbers

7. What number is shown? **2850**



Rounding

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

8. 4500 rounded to the nearest 1000 is **5000**

   253 450 to the nearest 10 000 is **250 000**

Read and Write Numbers in Numerals and Words

9. Complete the table:

Numerals	Words
344 285	Three hundred and forty-four thousand, two hundred and eighty-five
855 102	**Eight hundred and fifty-five thousand, one hundred and two**
622 916	six hundred and twenty-two thousand, nine hundred and sixteen
120 563	**One hundred and twenty thousand, five hundred and sixty-three**

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 = **219**

DCXXVI = **626**

CMXLVIII = **948**

MDCCCLXXI = **1871**

Solve Problems

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

MCMXCIX (1999) **MMIX (2009)** **MMXV (2015)**

Addition and Subtraction Answers

Add and Subtract Mentally

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

376 + 3 = **379** 376 + 40 = **416** 376 + 200 = **576**

Mental Methods

13. Add and subtract numbers mentally with larger numbers

15 672 – 3200 = **12 472**

Formal Methods

14. Use a formal written method to calculate:

	7	2	6	9	8
+	6	1	5	6	2
1	**3**	**4**	**2**	**6**	**0**

	8	4	9	3	5
-	1	2	4	2	3
	7	**2**	**5**	**1**	**2**

	5 ~~6~~	1 4	7 ~~8~~	10 ~~1~~	1 2
-	2	9	3	6	4
	3	**5**	**4**	**4**	**8**

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? **4812**

    How many children are there? **3639**

    How many children see the animation? **2693**

    How many more children see the animation than the adventure film? **1747**

Multiplication and Division Answers

Multiplication Tables

17. Fill in the missing numbers:

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	**2**	3	**4**	5	6	**7**	8	**9**	10	11	**12**
2	**2**	4	**6**	8	10	**12**	14	**16**	18	**20**	**22**	24
3	3	**6**	9	**12**	**15**	**18**	**21**	**24**	**27**	30	**33**	36
4	**4**	**8**	**12**	**16**	20	**24**	**28**	**32**	**36**	**40**	44	48
5	**5**	**10**	**15**	**20**	**25**	30	**35**	**40**	**45**	**50**	55	**60**
6	6	**12**	**18**	**24**	**30**	36	**42**	48	**54**	60	**66**	72
7	7	**14**	21	**28**	35	**42**	49	**56**	63	**70**	77	**84**
8	**8**	**16**	**24**	32	**40**	**48**	56	**64**	72	**80**	88	96
9	9	18	**27**	**36**	45	**54**	**63**	72	**81**	90	**99**	108
10	10	**20**	30	**40**	**50**	60	**70**	**80**	**90**	**100**	**110**	120
11	**11**	**22**	33	**44**	55	**66**	**77**	**88**	**99**	**110**	121	**132**
12	12	**24**	36	**48**	**60**	72	**84**	**96**	**108**	**120**	**132**	144

Multiplying and Dividing

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

400 × 5 = **2000** 630 ÷ 7 = **90**

Multiply by 0 and 1 and divide by 1:

285 × 1 =**285** 285 × 0 = **0** , 285 ÷ 1 = **285**

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

45 × 10 = **450** 6.7 × 100 = **670** 902 × 1000 = **902 000**

59 ÷ 10 = **5.9** 4506 ÷ 100 = **45.06** 382 ÷ 1000 = **0.382**

Factor Pairs and Commutativity

19. What are all the factor pairs of 56? **1 and 56, 2 and 28, 4 and 14, 8 and 7**

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

    14

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

    5 × 9 × 2 = 90 **2 × 9 × 5 = 90, 2 × 5 × 9 = 90, 9 × 2 × 5 = 90, 9 × 5 × 2 = 90**

    6 × 3 ×10 = 180 **6 × 10 × 3 = 180, 10 × 3 × 6 = 180, 10 × 6 × 3 = 180**

Prime Numbers

21. List all the prime numbers up to 20. **2, 3, 5, 7, 11, 13, 17, 19**

    List all prime numbers between 20 and 30. **23, 29**

    What would be the first prime number after 100? **101**

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
1	**1**
4	**8**
9	**27**
16	**64**
25	**125**
64	
81	
100	
121	

Formal Methods

23. Use formal written methods to multiply:

			2	7
		x		4
		1	**0**	**8**
			2	
		3	8	2
	x			7
	2	**6**	**7**	**4**
		5	**1**	
	2	4	7	1
x				6
1	**4**	**8**	**2**	**6**
	2	**4**		

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

			2	7
		x	1	4
		1	**0**	**8**
		2	**7**	**0**
		3	**7**	**8**

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

			1	9				9	7	r	2
	4	7	6			5	4	8	7		

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

15 × 3 = 45 or 56 ÷ **4** = 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.

12 × 4 = 48 new pencils.

48 + 37 = 85 pencils in total.

85 ÷ 5 = 17 pencils per table.

Scaling Problems with Simple Fractions

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

12 × 4 = 48 pieces

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? **8 different combinations.**

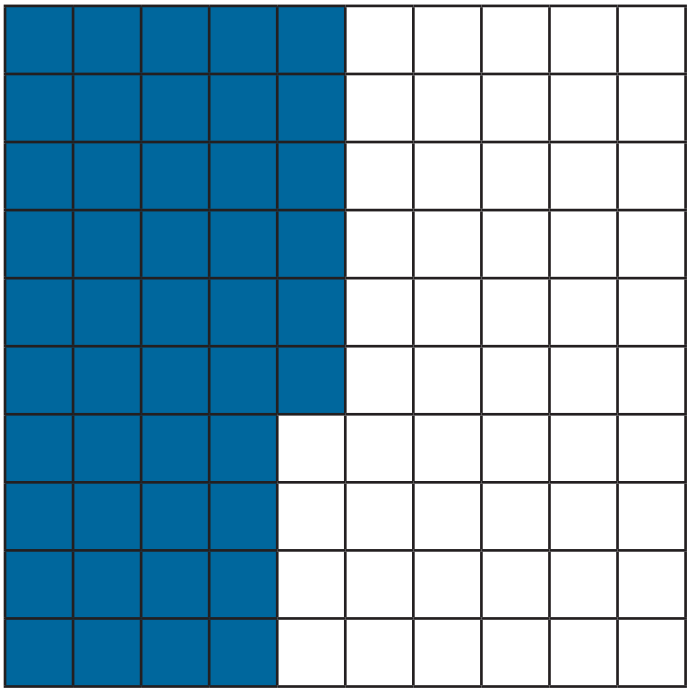
29. 120 pencils are shared equally between 3 classes. How many pencils will they each receive?

120 ÷ 3 = 40 pencils each.

Fractions Answers

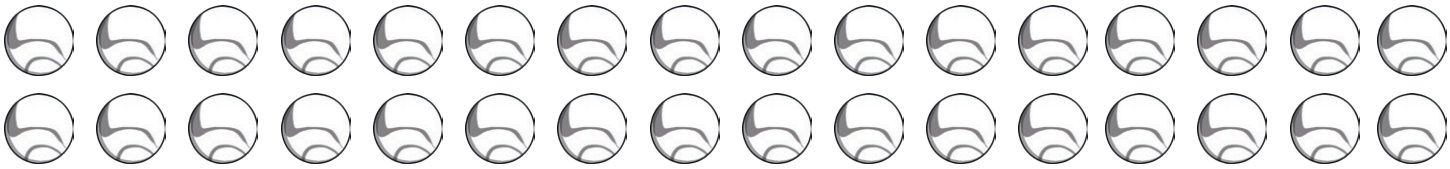
30. Shade to show 7/10:

Shade to show 46/100:



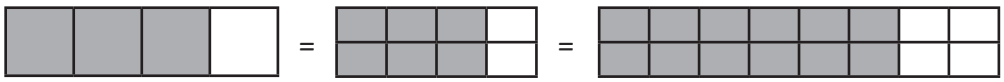
Equivalent Fractions

31. Find $\frac{5}{8}$ of these marbles by circling: **Accept 20 marbles circled**



Fraction of a Set of Marbles

32. Write in the missing fractions



$\frac{3}{4}$ $\frac{6}{8}$ $\frac{12}{16}$

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

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

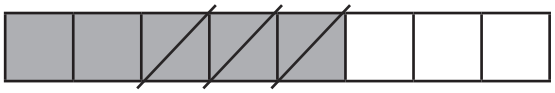
33. Write 3 fractions that are equivalent to $\frac{1}{3}$ $\frac{2}{6}$ $\frac{4}{12}$ $\frac{8}{24}$

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

34. Find the missing equivalent fractions.

$\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$

$\frac{5}{8} - \frac{3}{8} = \frac{2}{8} = \frac{1}{4}$



Compare and Order

Unit fractions

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

smallest $\frac{1}{8}$ $\frac{1}{6}$ $\frac{1}{4}$ $\frac{1}{3}$ 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 $1\frac{2}{3}$ = - Improper fraction $\frac{5}{3}$

Multiply Fractions

37. Complete the missing fractions:

$\frac{2}{3} \times 5 = \frac{10}{3} = 3\frac{1}{3}$

Decimal Equivalents

38. Complete the missing tenths, hundredths and decimals:

$\frac{7}{10} = 0.7$ $\frac{43}{100} = 0.43$

$\frac{1}{4} = 0.25$ $\frac{1}{2} = 0.5$ $\frac{3}{4} = 0.75$

Write decimals as a fraction:

$0.67 = \frac{67}{100}$

Division by 10 and 100

39.

2 ÷ 10 = **0.2** 2 ÷ 100 = **0.02** 25 ÷ 10 = **2.5** 25 ÷ 100 = **0.25**

Rounding Decimals

40. Round these decimals to the nearest whole number:

0.5 rounds to **1**

2.35 rounds to **2**

Round this decimal to one decimal place:

0.05 rounds to **0.1**

Read, Write, Order and Compare Decimals

41. Write the decimal in digits:

zero ones, four tenths and five hundredths. **0.45**

two ones, three tenths and four hundredths. **2.34**

Percentages

42. Complete the missing percentages:

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

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?

$\frac{\mathbf{2}}{\mathbf{10}}$ + $\frac{\mathbf{2}}{\mathbf{10}}$ + $\frac{\mathbf{6}}{\mathbf{10}}$

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?

Ellie will receive £1.75 in change.

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

9.8kg

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?

1.348kg – 0.75kg = 0.598kg

Knowing Percentage and Decimal Equivalents

46. Order the following from smallest to largest:

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

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

Measurement Answers

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 **9.5cm** or **95mm** long.

Mass (g/kg)

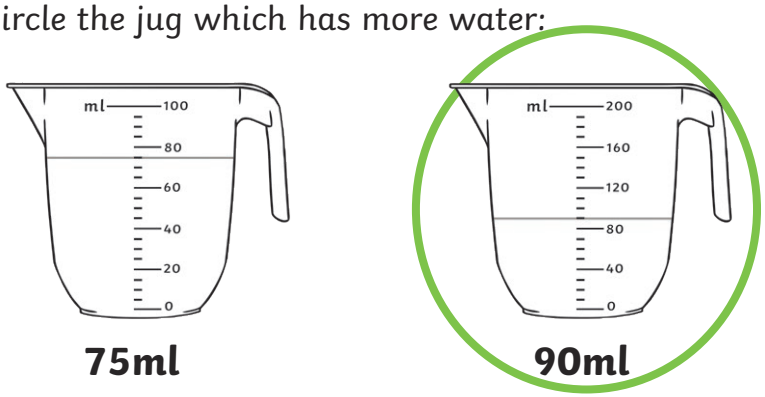
Measure the mass of objects using different scales

48. 3 apples weigh 435g. One is eaten, and the 2 remaining apples weigh 285g. What is the mass of the eaten apple? **150g**

Capacity (ml/l)

49.

Circle the jug which has more water:



75ml **90ml**

Convert between units

50.

Complete the missing conversions:

Length:

1 km = **1000m**

1m = **100cm** or **1000mm**

1cm = **10mm**

Mass:

1kg = **1000g**

Capacity/ Volume:

1l = **1000ml**

Time:

1 year = **365** days

1 week = **7** days

1 day = **24** hours

1 hour = **60** minutes

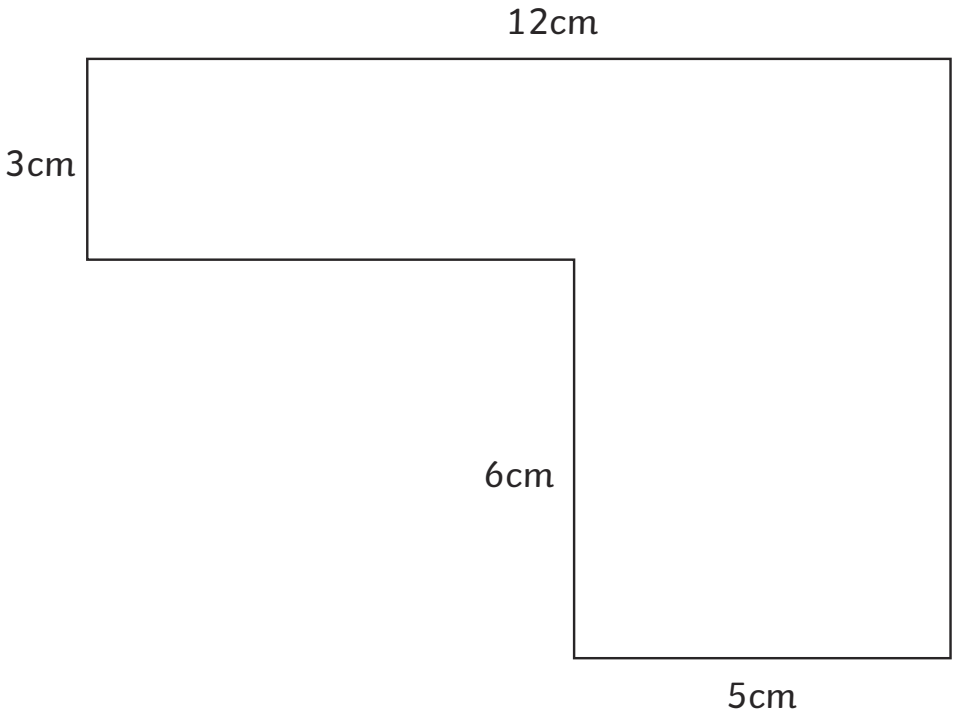
1 minute = **60** seconds

Perimeter

51. Calculate the perimeter:

Perimeter = 22cm.

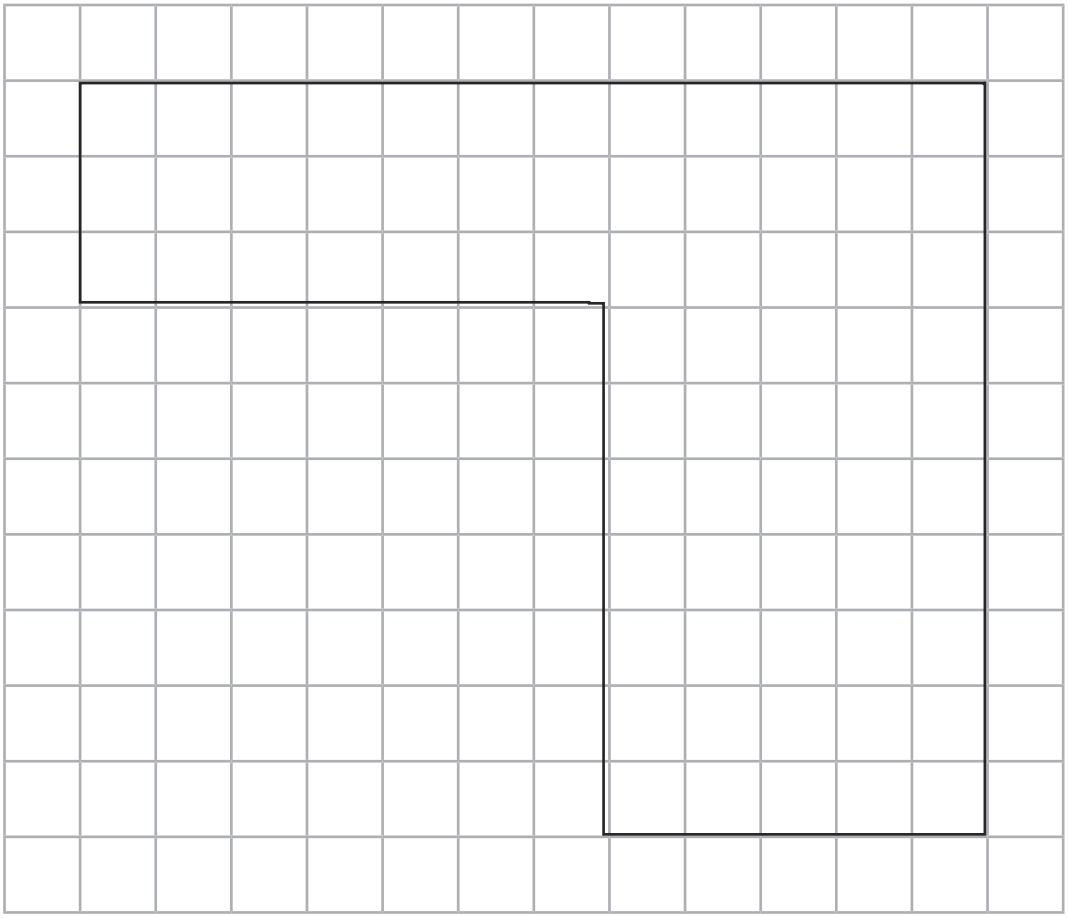
Measure and calculate the perimeter of rectilinear shapes (including squares)



Perimeter = 42cm.

Area

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

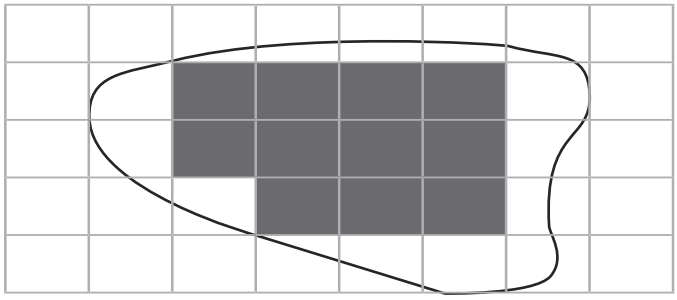


Area = 71cm²

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

Area = **8cm** × **3cm** = **24cm²**

c) Estimate the area of this irregular shape:



Accept answers between 17cm² and 22cm²

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?

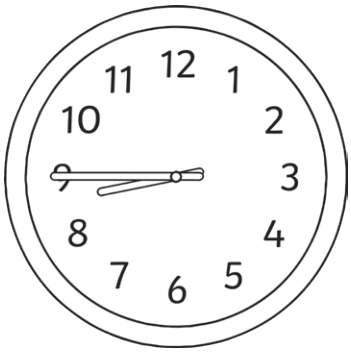
£2.25 + £3.15 = £5.40

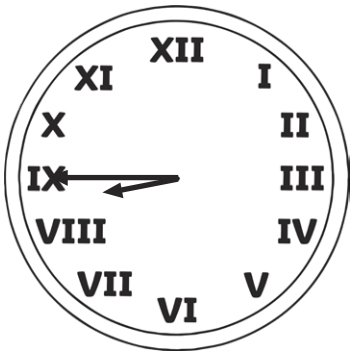
£20 - £5.40 = **£14.60**

Time

54. Analogue clocks and 12/24 hour time

a) What time do these clocks show? **Quarter to 9, 08:45, or eight forty-five**





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? **The art lesson was longer by 15 minutes**

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

2 hours and 16 minutes

Solve Problems

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

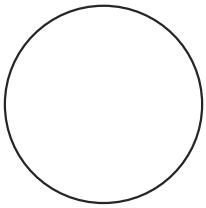
1.75 litres of water.

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?

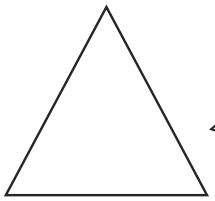
175g more soil is needed in each pot.

2D Shapes

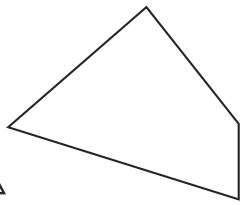
56. Label the shapes.



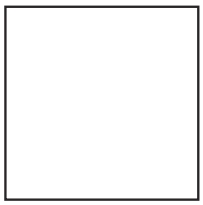
circle



triangle

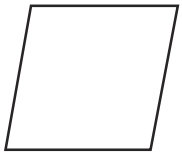


quadrilateral



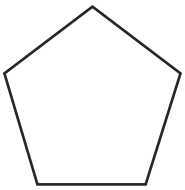
square

rectangle

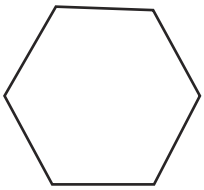


rhombus

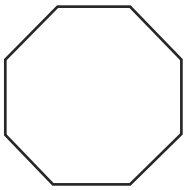
parallelogram



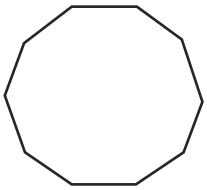
pentagon



hexagon

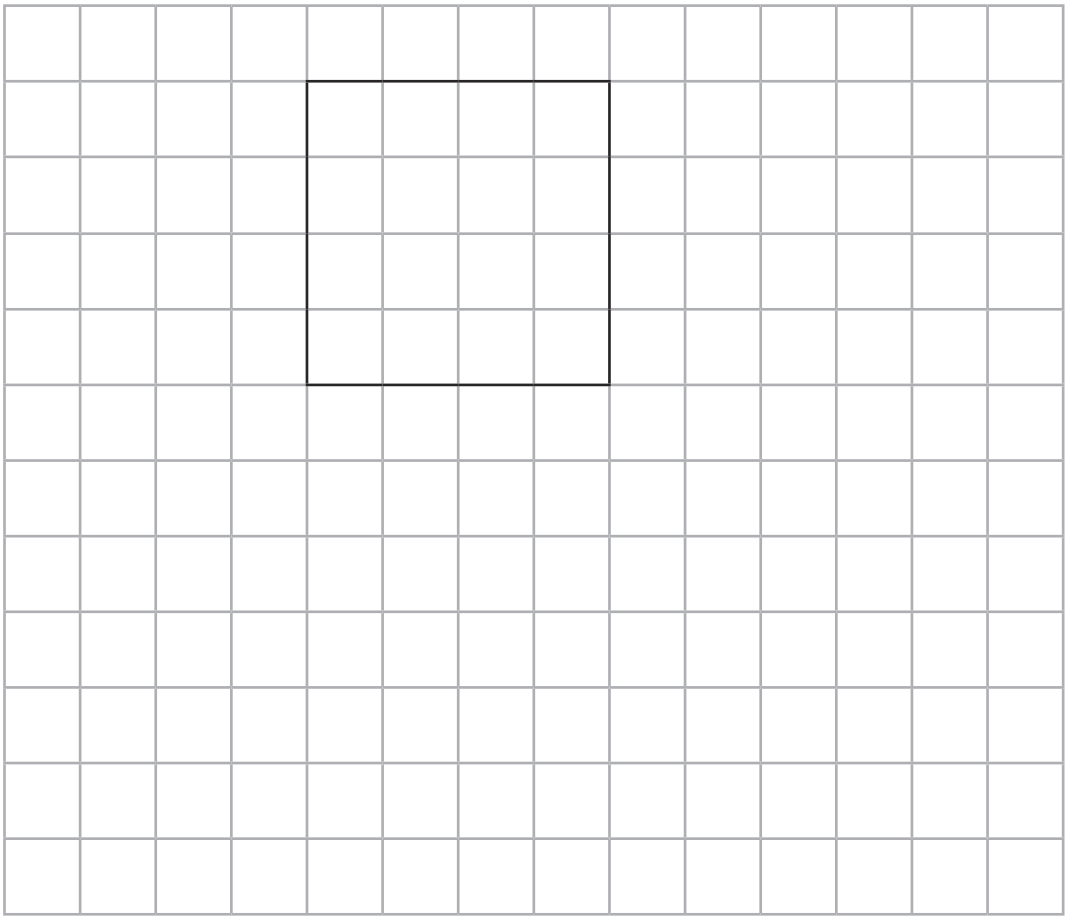


octagon

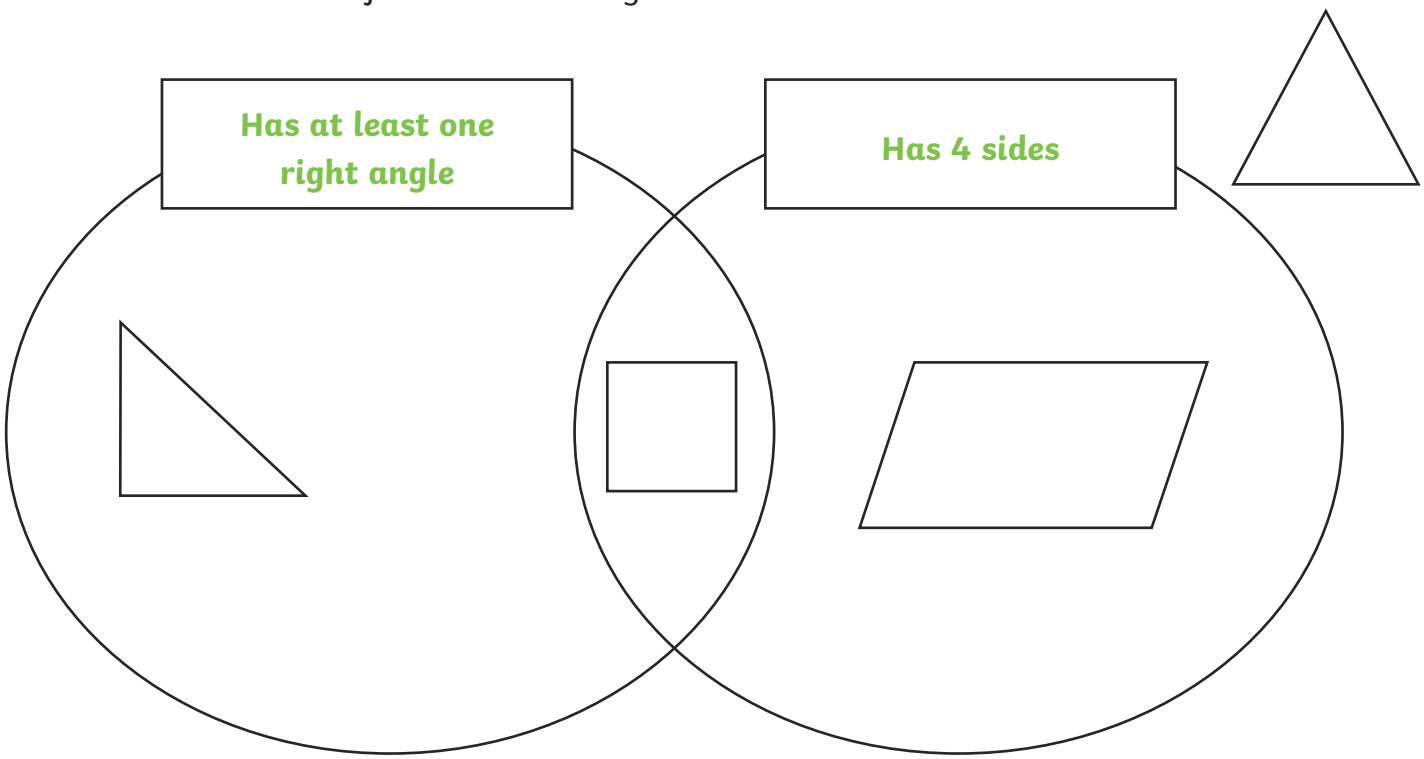


decagon

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



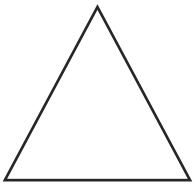
58. Write suitable titles for this Venn diagram:



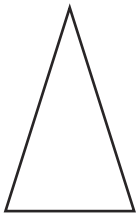
Triangles

59. Label the triangles.

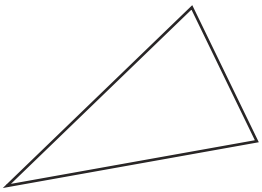
Equilateral (all sides and angles equal)



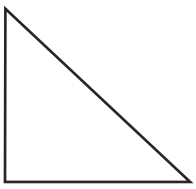
Isosceles (2 sides and angles equal)



Scalene (no sides and angles equal)

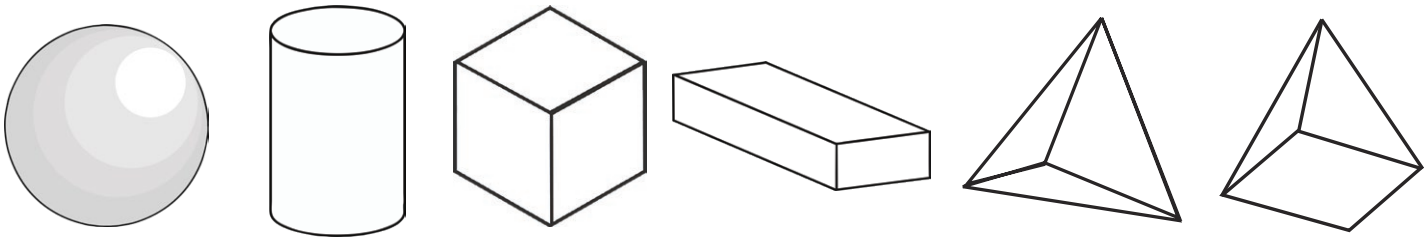


Right-angled triangle (no sides and angles equal)

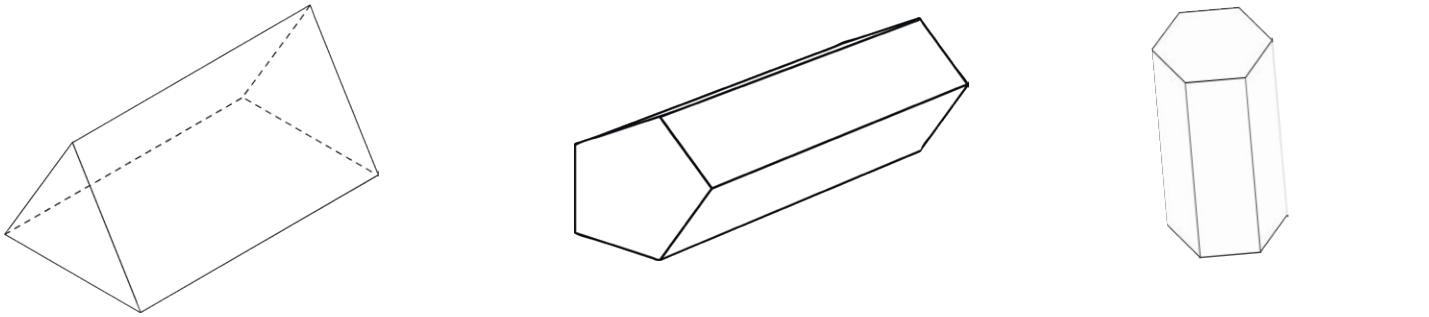


3D Shapes

60. Label the shapes:



sphere | cylinder | cube | cuboid | tetrahedron | square-based pyramid



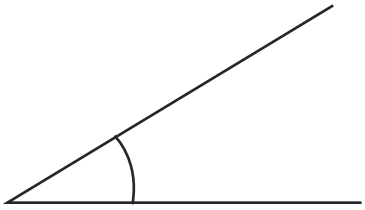
triangular prism | pentagonal prism | hexagonal prism

Recognise 2D representations and make models from modelling materials

Angles

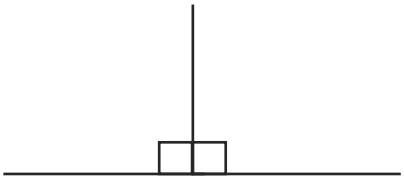
61. Complete the statements:

An **angle** measures a turn.

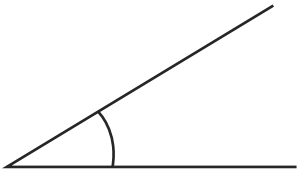


A **right angle** is the corner of a square.

2 right angles make a straight line.



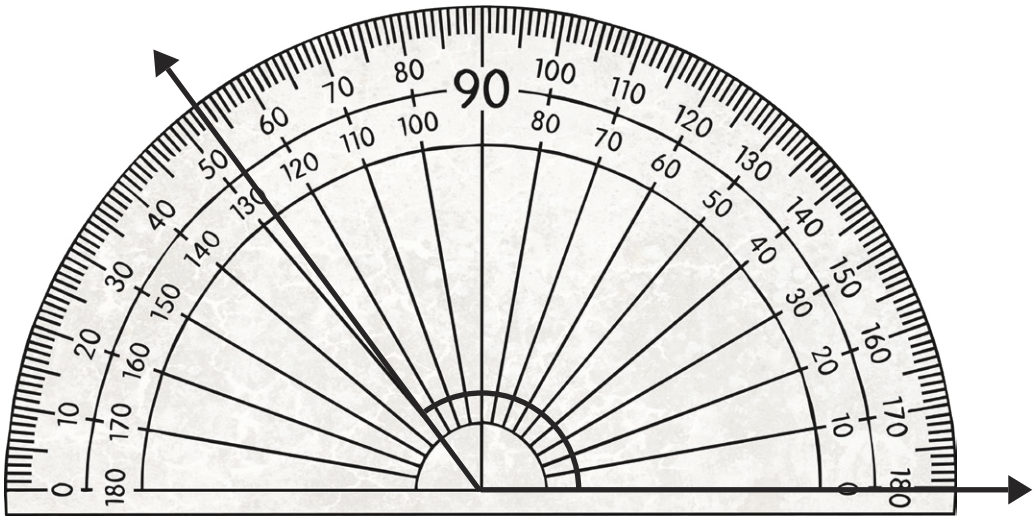
An **acute** angle is less than a right angle (90°).



An **obtuse** angle is between a right angle and a straight line.

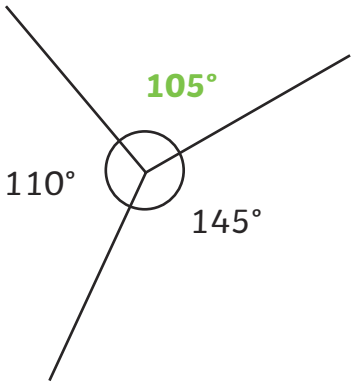
Draw and Measure Angles

62. a) Measure the angle:

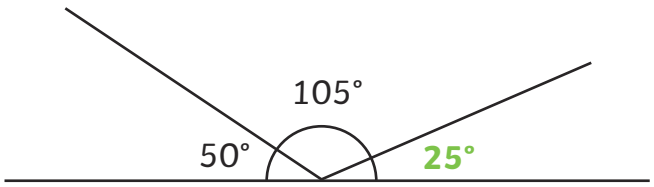


The angle measures **127°**

b) Calculate the missing angles:



c)



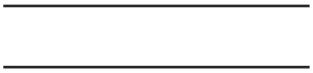
One right angle = **90°** Two right angles = **180°** Three right angles = **270°**

Lines

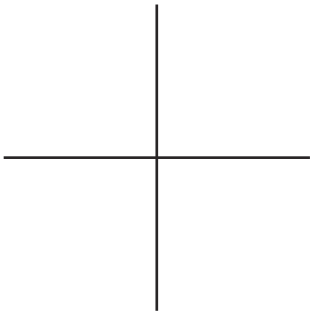
63. Label the lines using the word bank:

vertical

horizontal



parallel

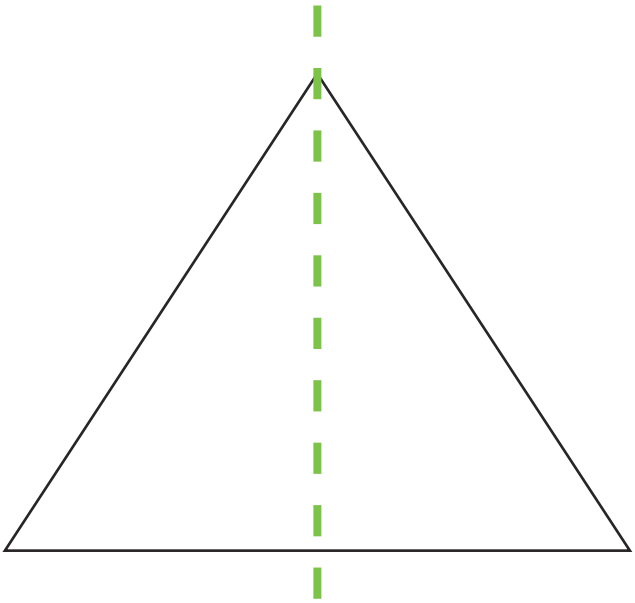


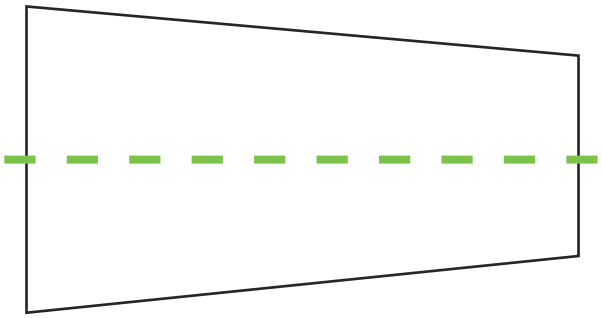
perpendicular

vertical
parallel
horizontal
perpendicular

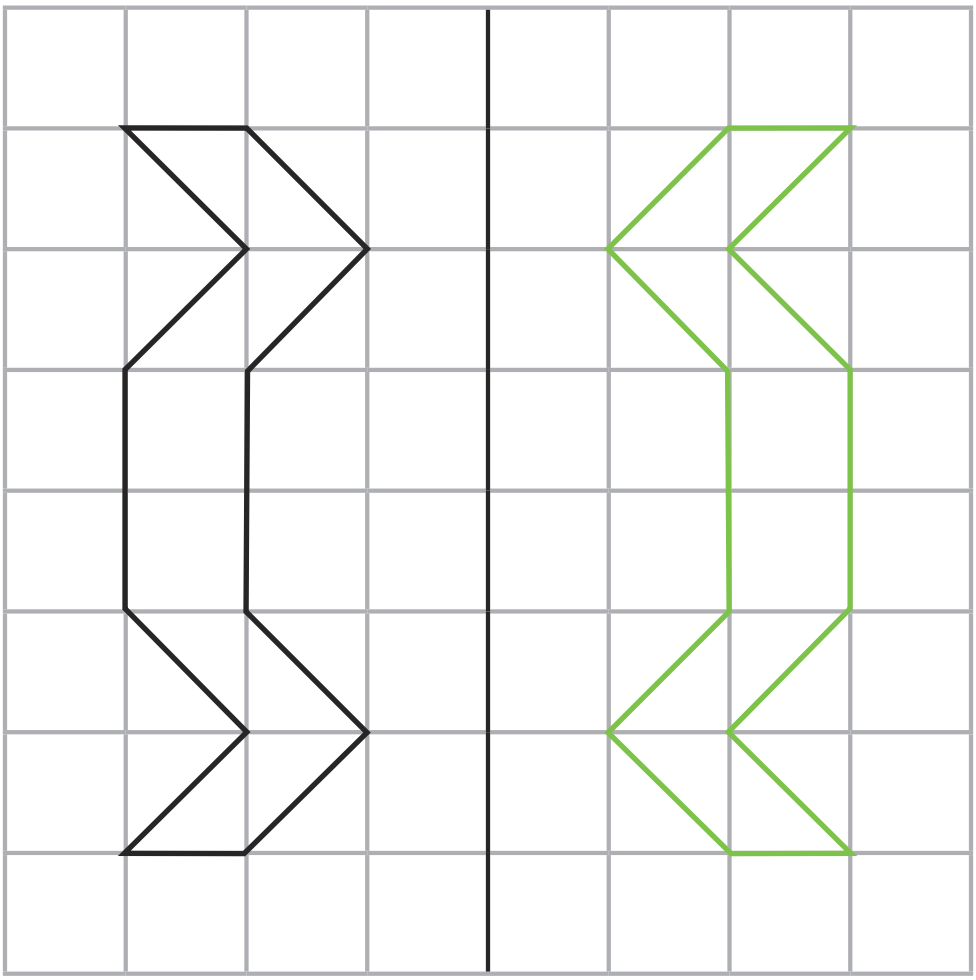
Symmetry

64. Mark the lines of symmetry in these shapes:



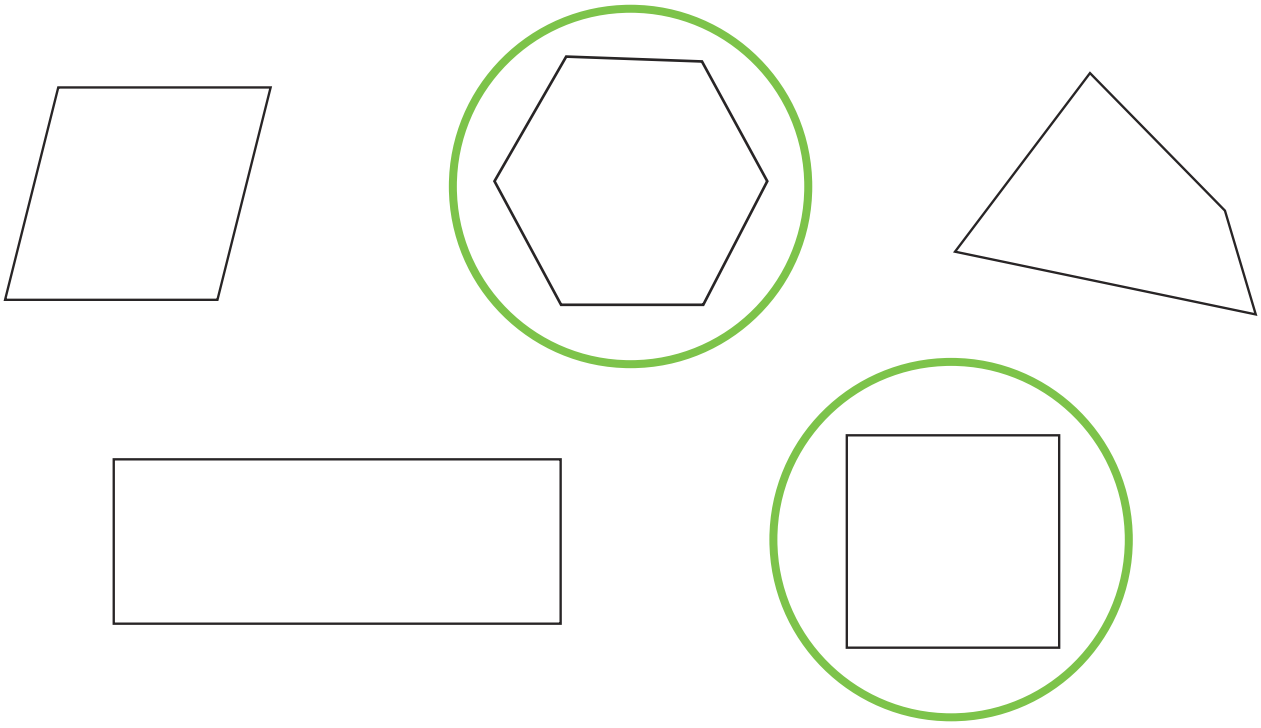


Complete the symmetrical figure:



Regular and Irregular Polygons

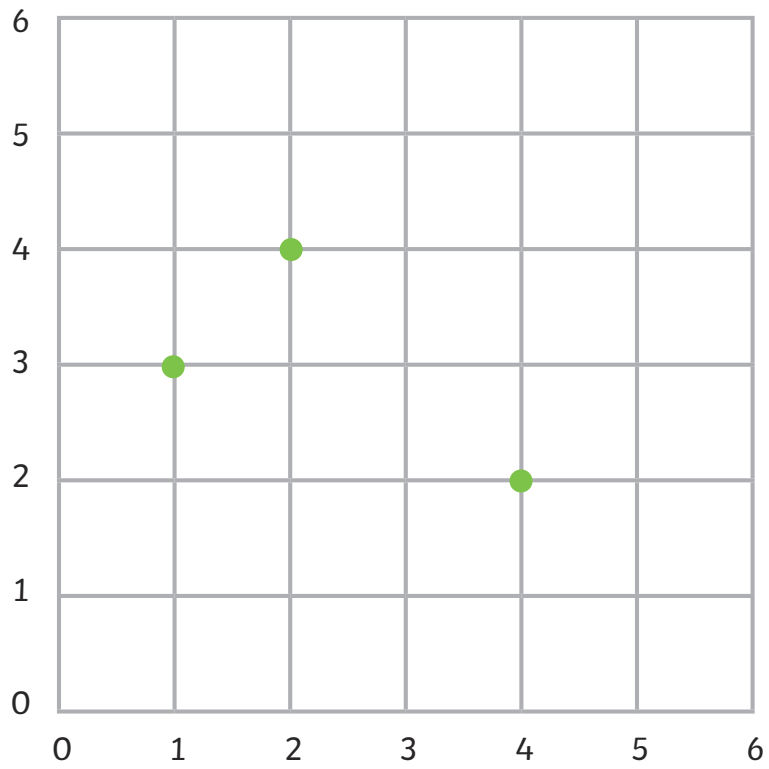
65. Circle the regular polygons:



Geometry – Position and Direction **Answers**

Coordinates

66.



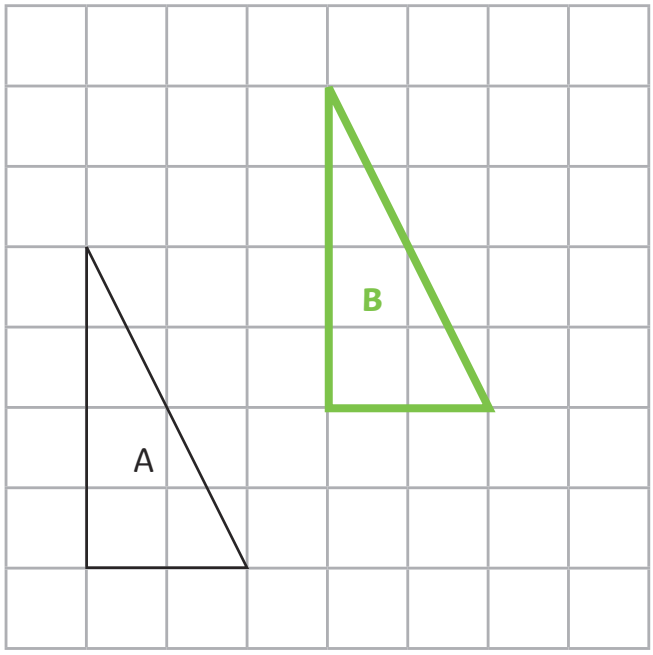
Label A, B and C The coordinates are

A (1,3)

B (2,4)

C (4,2)

Translation

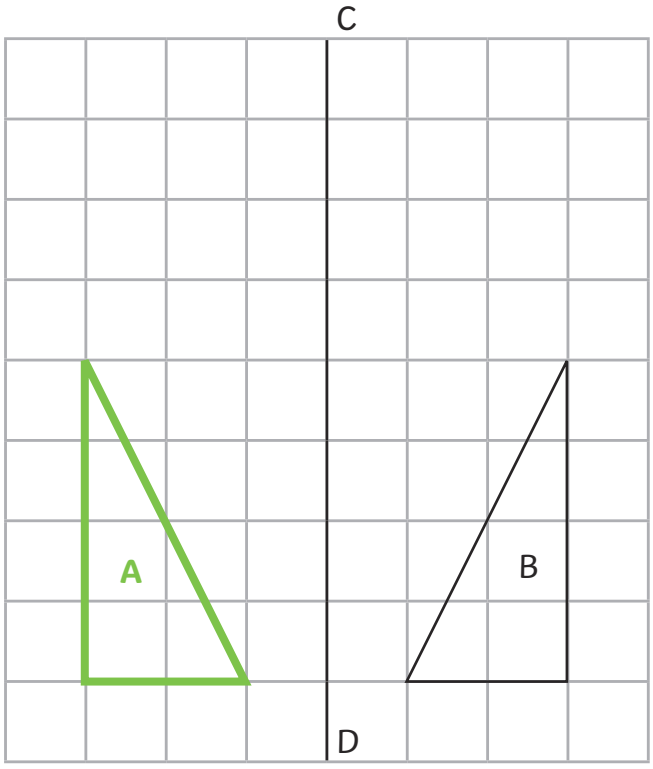


The triangle A is translated three squares to the right and two squares up to triangle B.

Mark triangle B

Reflection

What are the coordinates of the point that will complete a rectangle? **(3,1)**

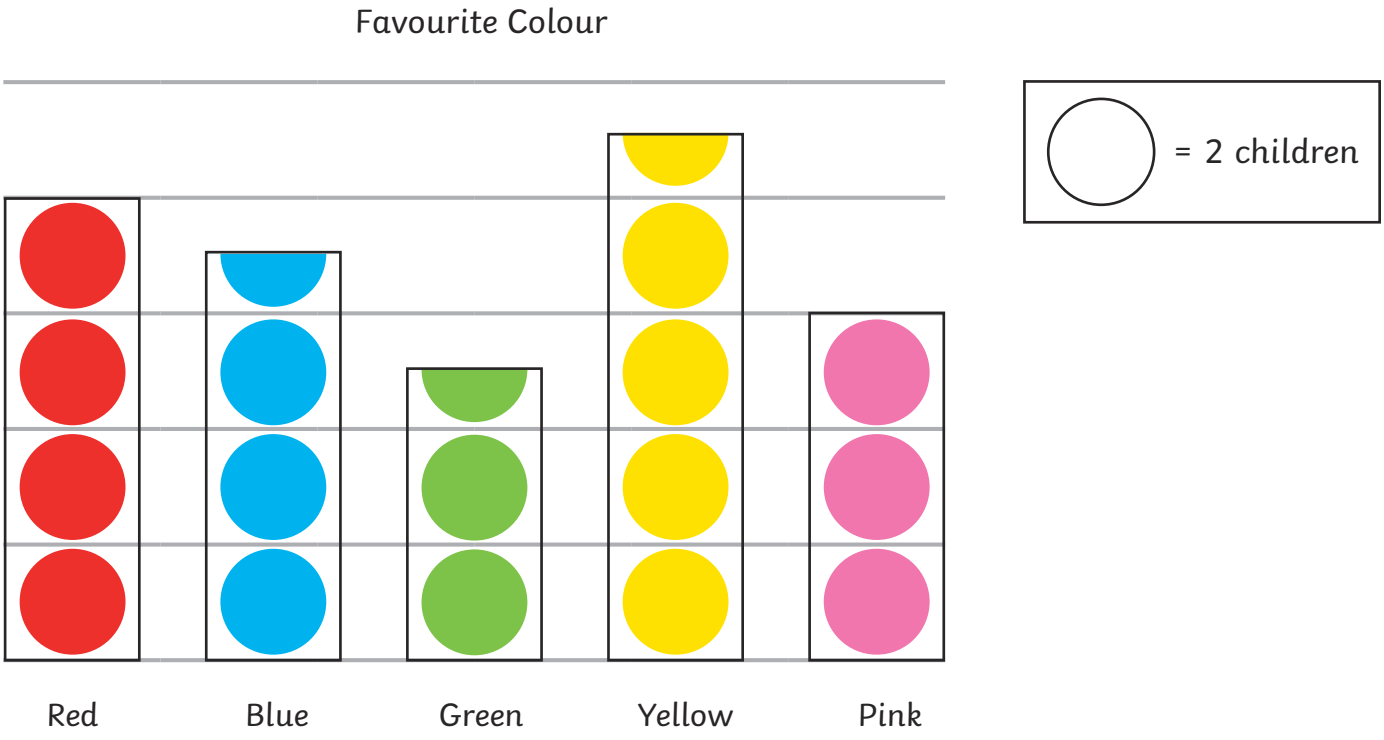


The triangle A is reflected about the line CD to triangle B.

Statistics Answers

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

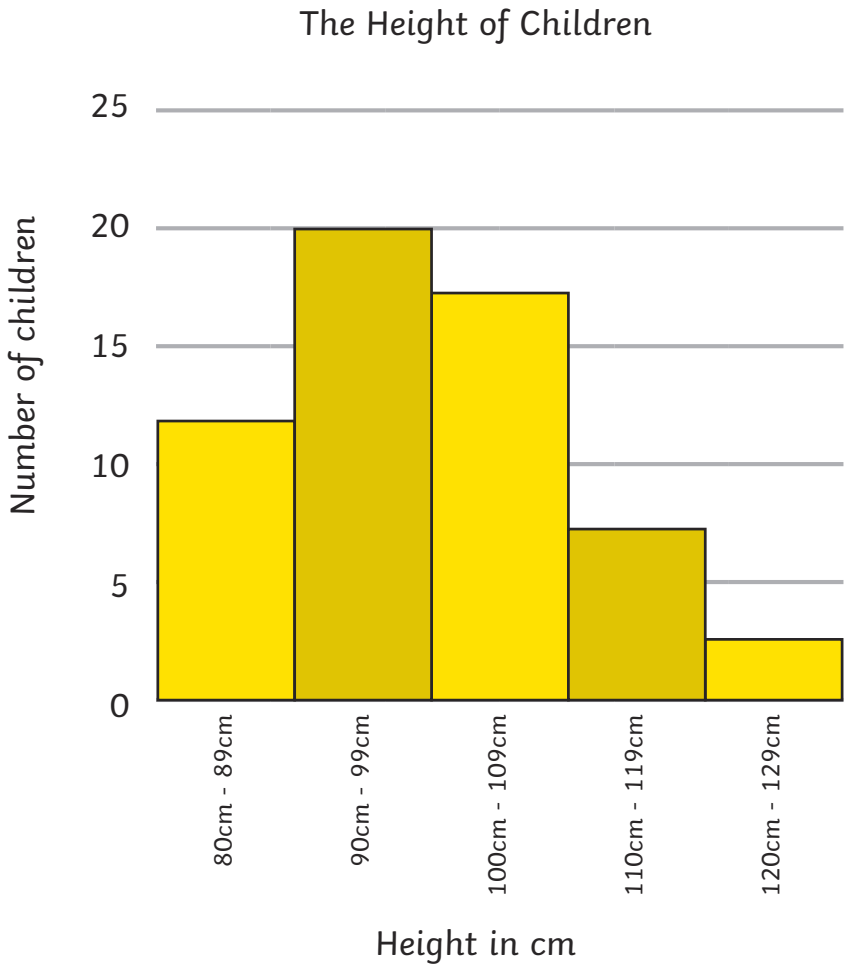
Pictograms



a) How many children chose their favourite colour? **35**

Bar Charts

b) How many more children chose cheese and onion as their favourite crisps than ready salted? **10** children



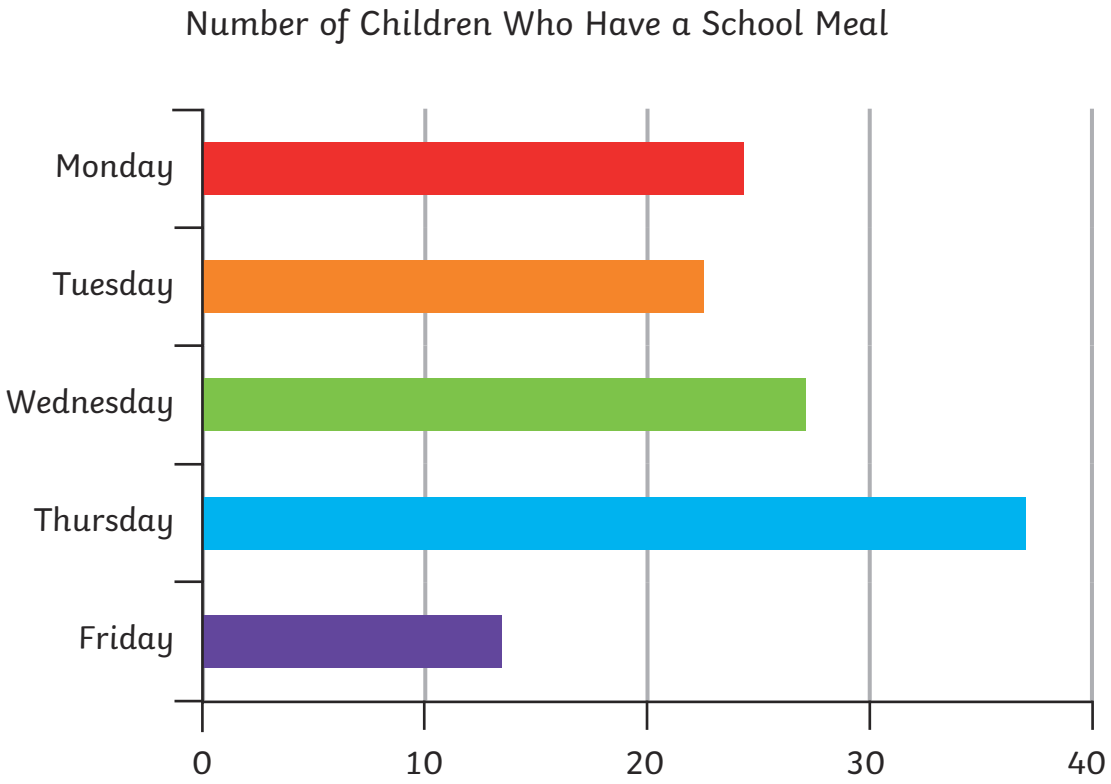
c) How many children are shorter than 1m? **32** or **33** children

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

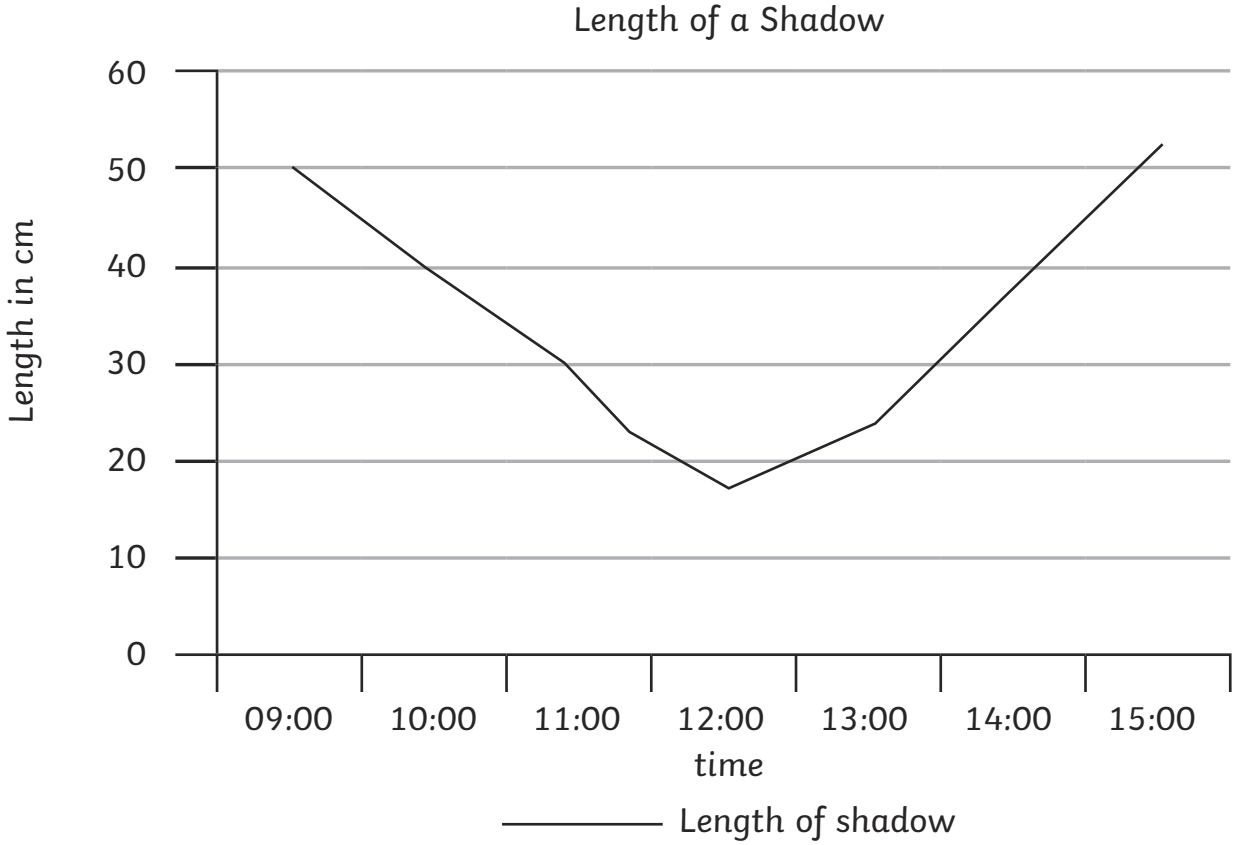
d) Which chocolate bar is the most popular? **Tiger**

Time Graphs



e) How many children had a school meal during the week? Approximately **126** children

Line Graphs



f) In which hour was the largest change in the length of the shadow? **Between 14:00 and 15:00**

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? **Journey B is the shortest**