# Angles, shape and time

Answer sheet

MyMaths

**You will need a ruler or straight edge for this worksheet.**

## Question 1

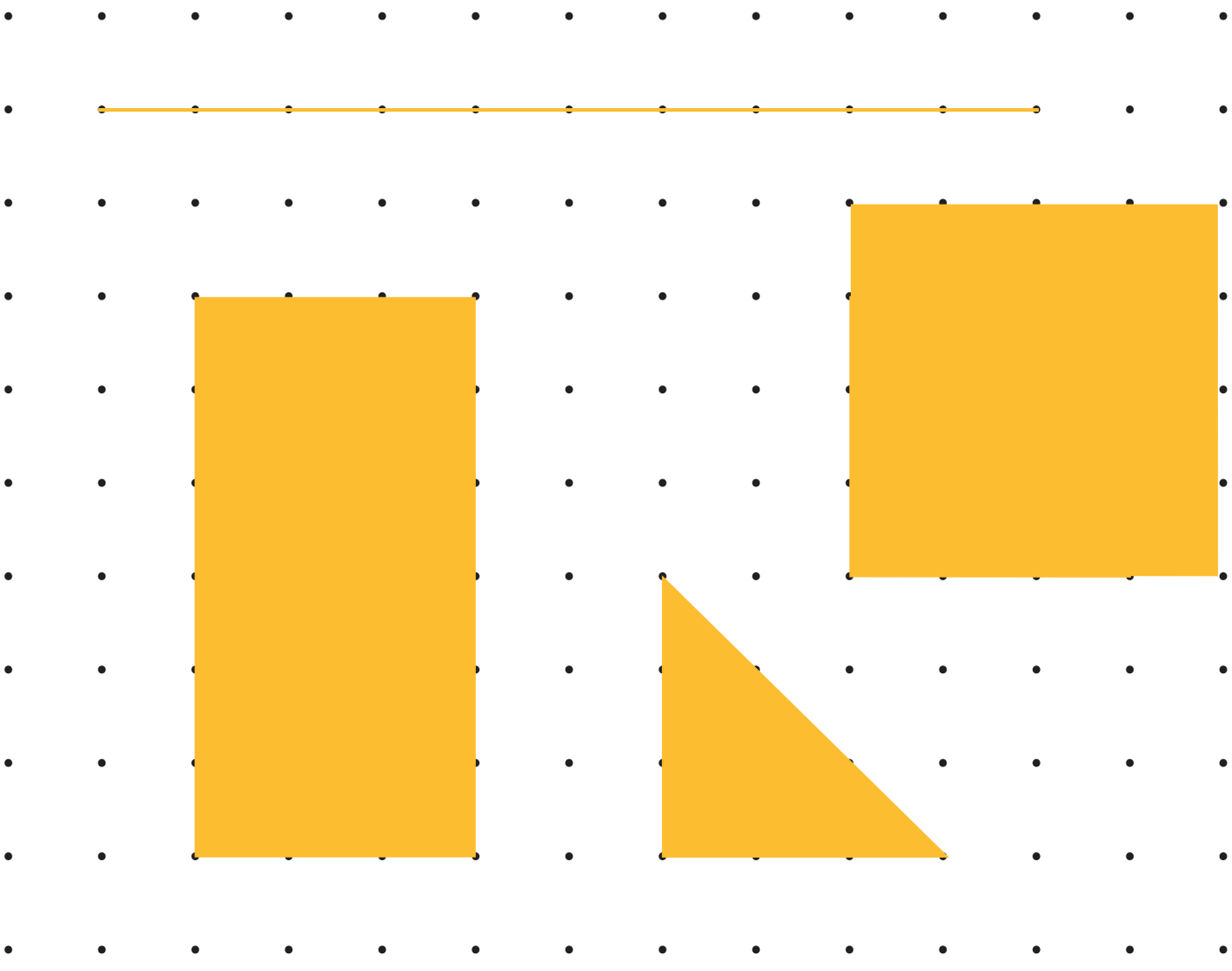
Use the space below to draw:

**a** a horizontal line ten units long

**b** a square with sides four units long

**c** a rectangle with two sides 3 units long and two sides 6 units long

**d** a triangle with two sides that are the same length.

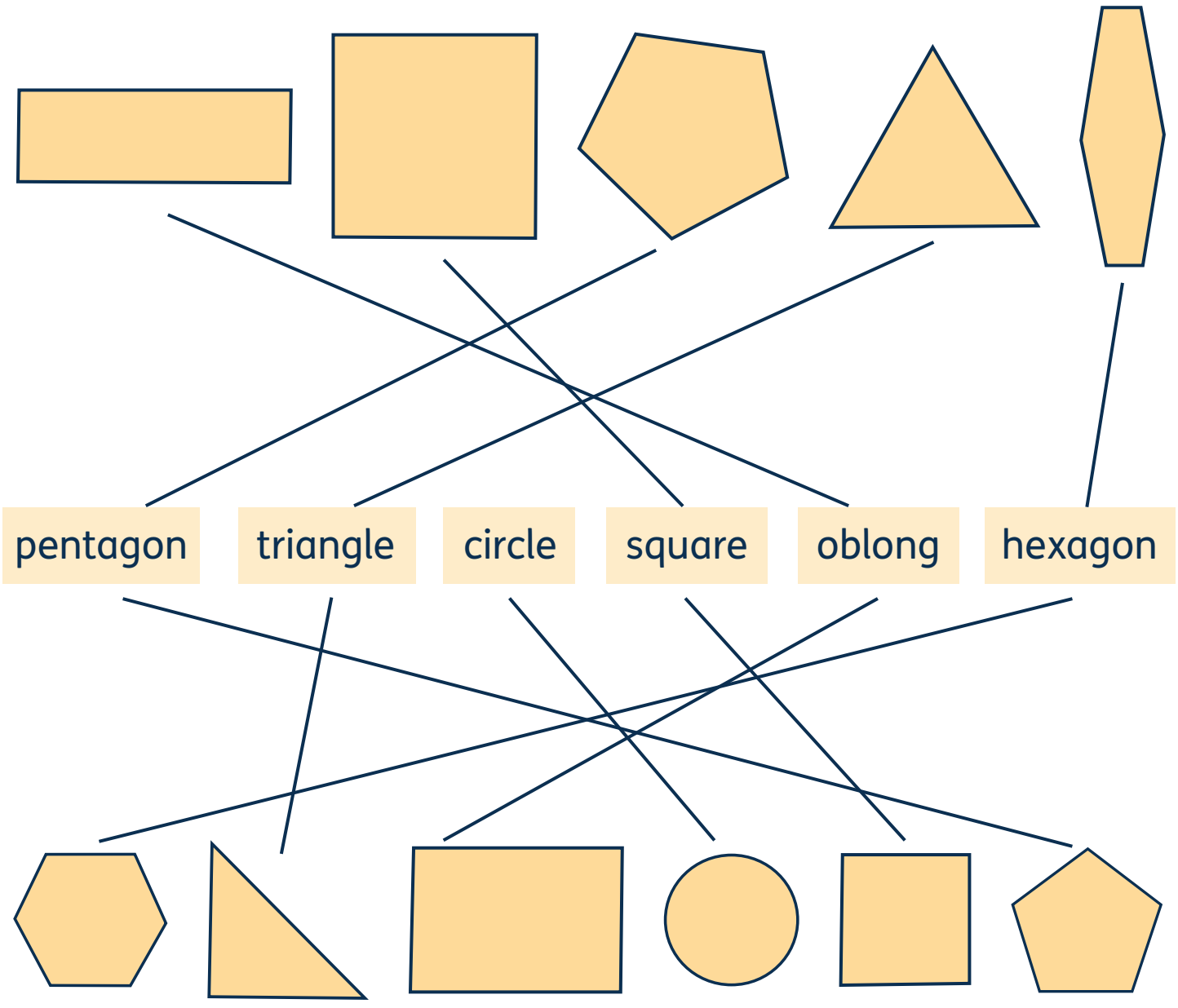


# Angles, shape and time

Answer sheet

## Question 2

Match the shape to its name.



# Angles, shape and time

Answer sheet

MyMaths

## Question 3

Write the name of a 2D shape in each section of the grid.

| | Four sides | More than four sides |
|---|---|---|
| All sides the same length | Square, regular parallelogram | Regular pentagon/ hexagon/etc. |
| Not all sides the same length | Oblong, trapezium, parallelogram | Irregular pentagon/ hexagon/etc. |

Can you think of two shapes that do not fit into any section of the grid? Draw and label them below.

e.g. triangle, circle

# Angles, shape and time

Answer sheet

## Question 4

Match these 3D shapes to their names.

cylinder

cone

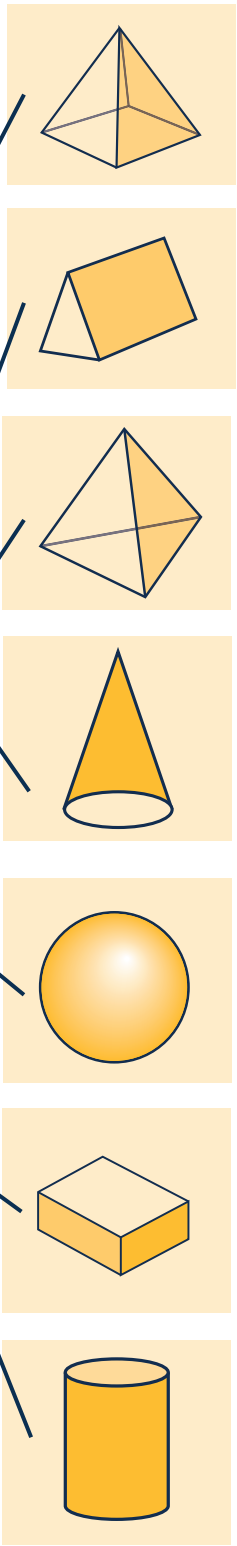
sphere

cuboid

square-based pyramid

tetrahedron

triangular prism



# Angles, shape and time

Answer sheet

MyMaths

## Question 5

This table describes the properties of 3D shapes. Fill in the gaps in the table.

| Shape | Vertices | Edges | Flat faces | Curved surfaces |
|---|---|---|---|---|
| Cube | 8 | 12 | 6 | 0 |
| Cone | 1 | 1 | 1 | 1 |
| Tetrahedron | 4 | 6 | 4 | 0 |
| Triangular prism | 6 | 9 | 5 | 0 |
| Cylinder | 0 | 2 | 2 | 1 |
| Square-based pyramid | 5 | 8 | 5 | 0 |
| Sphere | 0 | 0 | 0 | 1 |

## Question 6

Guess the shape based on its description.

**a**

I am 3D.

I have five faces.

Only one of my faces is a square.

square-based pyramid

**b**

I am 3D.

I have three faces.

One of my surfaces is curved.

Two of my faces are circles.

cylinder

# Angles, shape and time

Answer sheet

MyMaths

**c**

I am 2D.

I have four sides.

I have four right angles.

Two of my sides are longer than the other two.

oblong/rectangle

**d**

I am 3D.

I have five faces.

Two of my faces are triangular.

Three of my faces are oblong.

triangular prism

**e**

I am 2D.

I have no straight sides and no corners.

circle

**f** Can you write your own guess the shape puzzle?

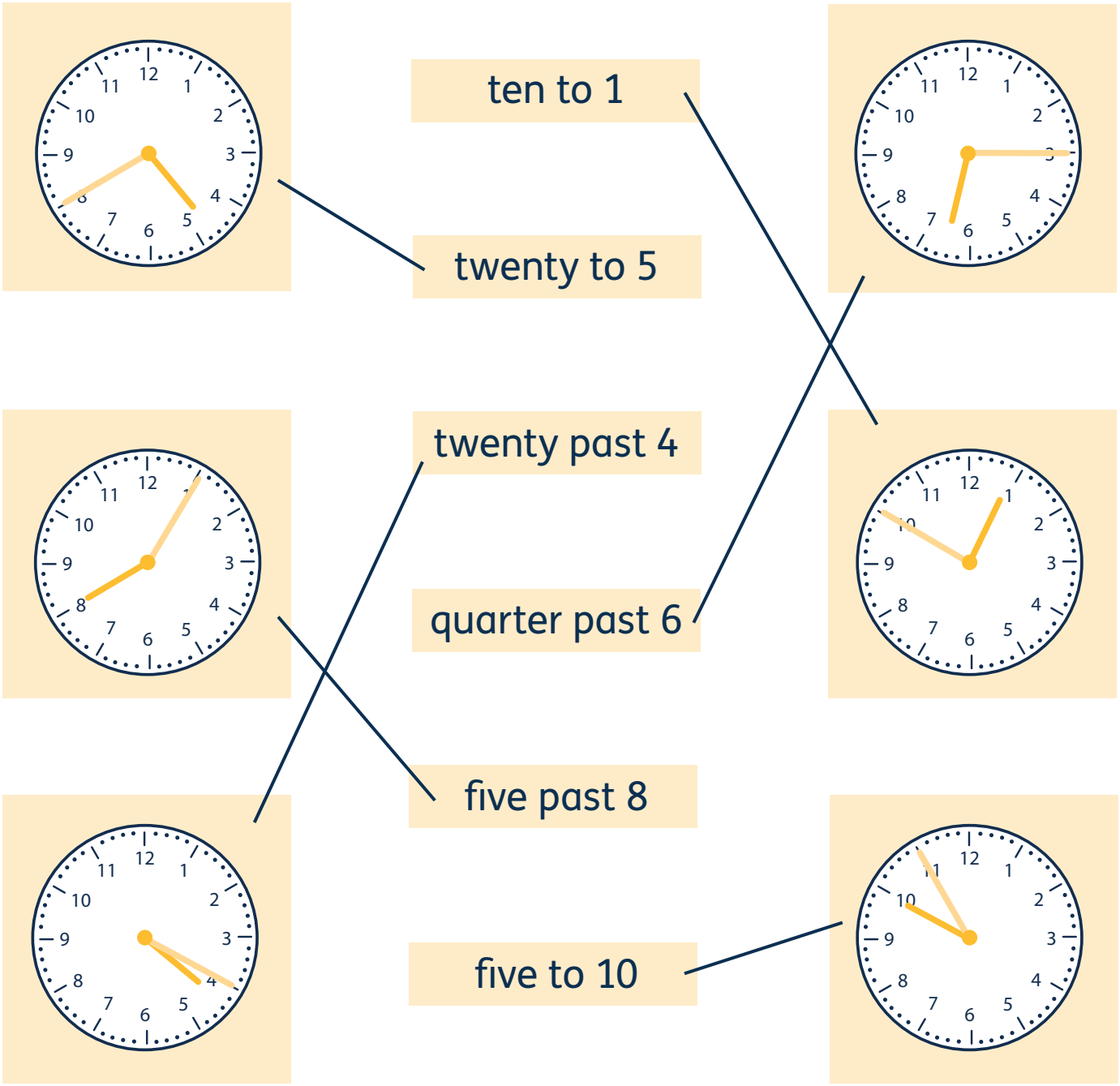
Answers vary

# Angles, shape and time

Answer sheet

## Question 6

Match the times in words to the times shown on the clocks.



# Angles, shape and time

Answer sheet

## Question 7

Complete the time for each clock.

15 minutes past 6

20 minutes to 7

25 minutes past 2

15 minutes to 3

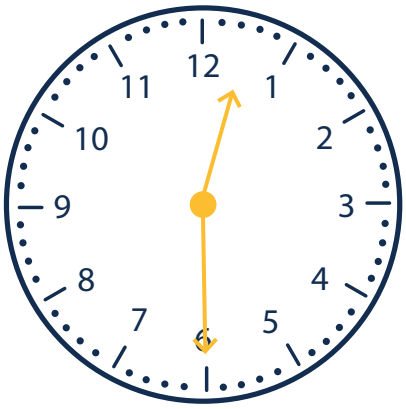
# Angles, shape and time

Answer sheet

## Question 8

Draw the times on these clock faces.

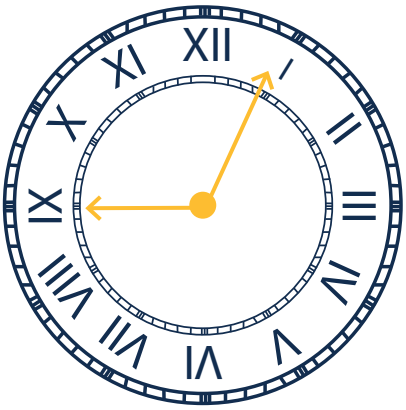
half past 12




twenty to 3


10 minutes to 10


5 past 9

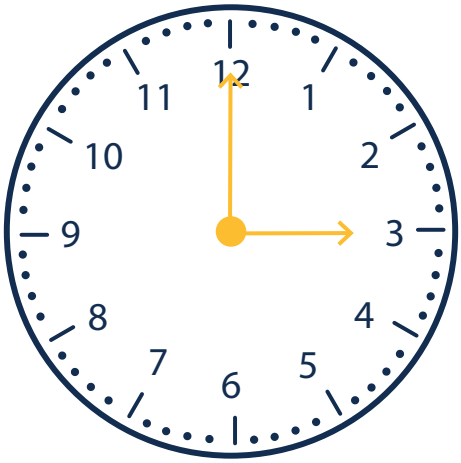


# Angles, shape and time

Answer sheet

## Question 9

**a** Draw a time where the hands are perpendicular to each other. What time have you drawn?




**b** Can you think of two other times of day when the hands are approximately perpendicular?

Perpendicular times: 3 o'clock, 9 o'clock

Nearly perpendicular times include: quarter to 12, quarter past 6, 20 to 5, 10 to 7, 10 past 5, 10 past 11, etc.

# Statistics

Answer sheet

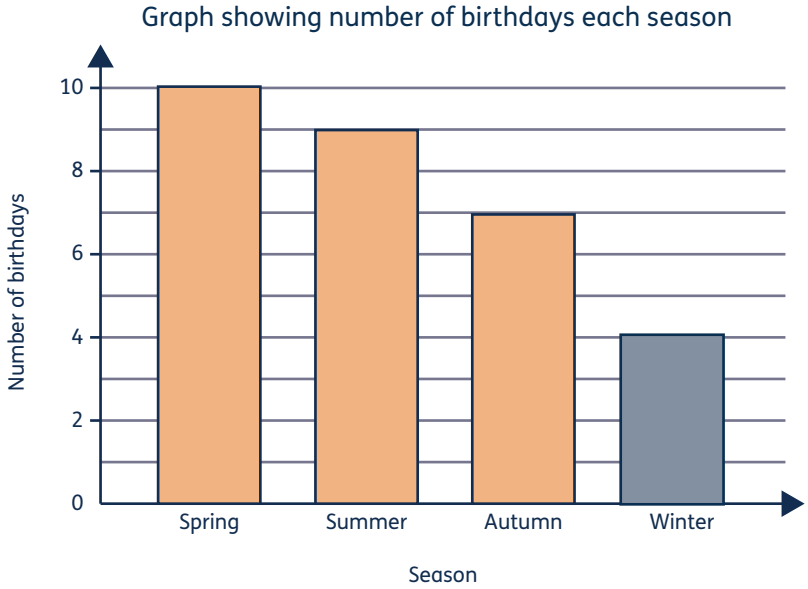
## Question 1

Darren asked 30 people in his class when their birthday was.

Here are the results in a frequency table.

| | Frequency |
|---|---|
| Spring | 10 |
| Summer | 9 |
| Autumn | 7 |
| Winter | 4 |

**a** Can you fill in the graph with the missing data for winter?




**b** Which season has the most birthdays?

Spring

**c** What is the difference between the number of birthdays in winter and spring?

6

**d** What is the sum of the number of birthdays in the two seasons with the most?

19





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# Statistics

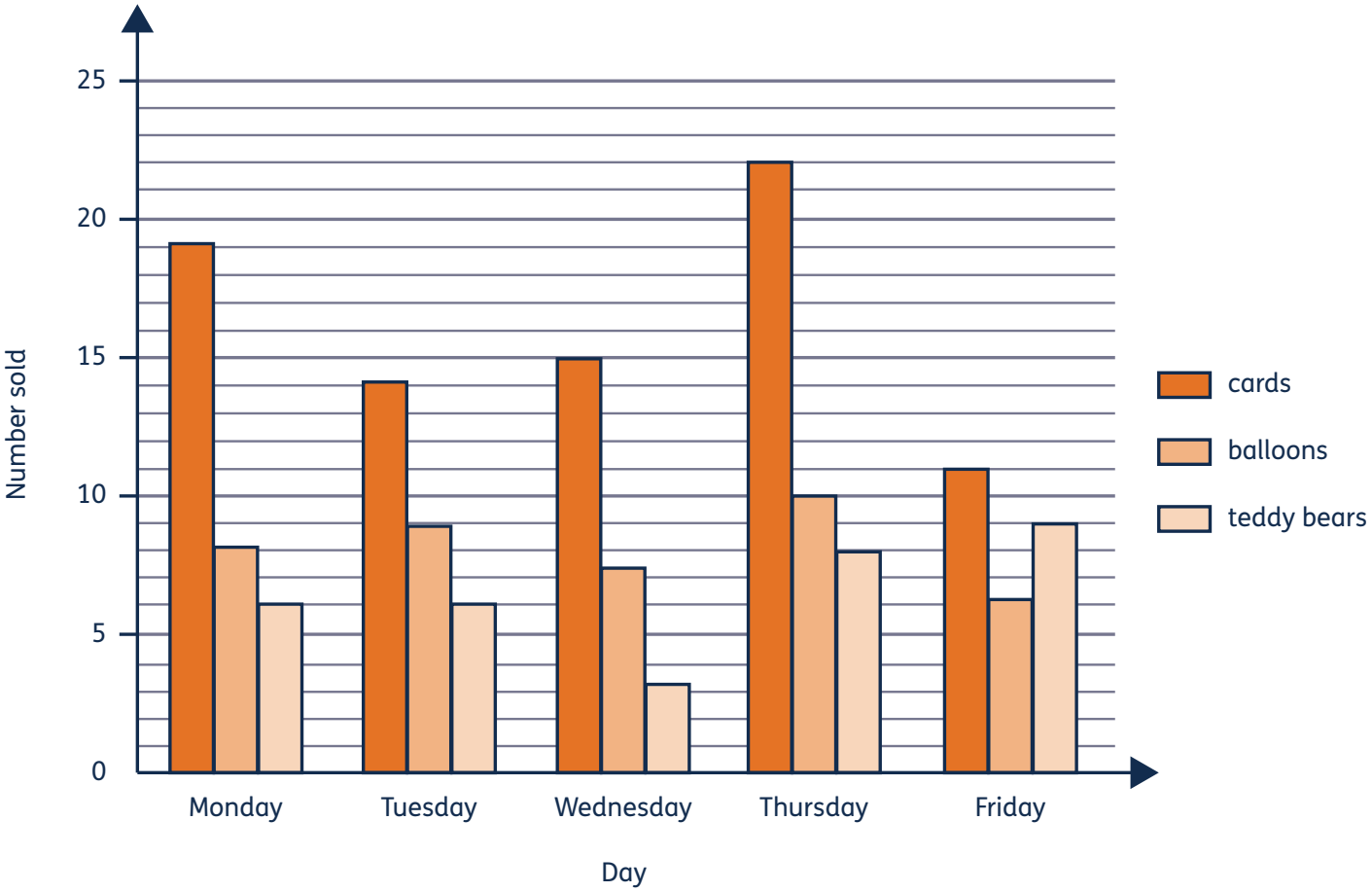
Answer sheet

## Question 2

Maria runs a present shop. She keeps track of how many presents she's sold every day.

See the next page for questions about this graph.

Graph showing number of presents sold each day in the shop



# Statistics

Answer sheet

MyMaths

**a** Can you fill out the blanks in the table based on the graph from the previous page?

| Day | cards | balloons | teddy bears |
|---|---|---|---|
| Monday | 19 | 8 | 6 |
| Tuesday | 14 | 9 | 6 |
| Wednesday | 15 | 7 | 3 |
| Thursday | 22 | 10 | 8 |
| Friday | 11 | 6 | 6 |

**b** How many presents did Maria sell on her busiest day?

40 items (Thursday)

**c** How many cards did Maria sell that week?

81

**d** How many of her least popular item did Maria sell?

29 (teddy bears)

**e** What is the difference between the number of cards and the number of teddy bears sold that week?

52

# Statistics

Answer sheet

MyMaths

## Question 3

Class A and Class B are both collecting milk bottle tops for charity. Here is how many they've collected each month.

| | Month 1 | Month 2 | Month 3 | Month 4 |
|---|---|---|---|---|
| Class A | 86 | 131 | 145 | 111 |
| Class B | 98 | 105 | 82 | 138 |

**a** In which month were the most milk bottle tops collected?

249 (Month 4)

**b** How many bottle tops did Class A collect all together?

473

**c** How many more bottle tops did Class A collect than Class B in Month 3?

63

**d** What is the difference between the total amount of bottle tops collected in Month 4 and Month 1?

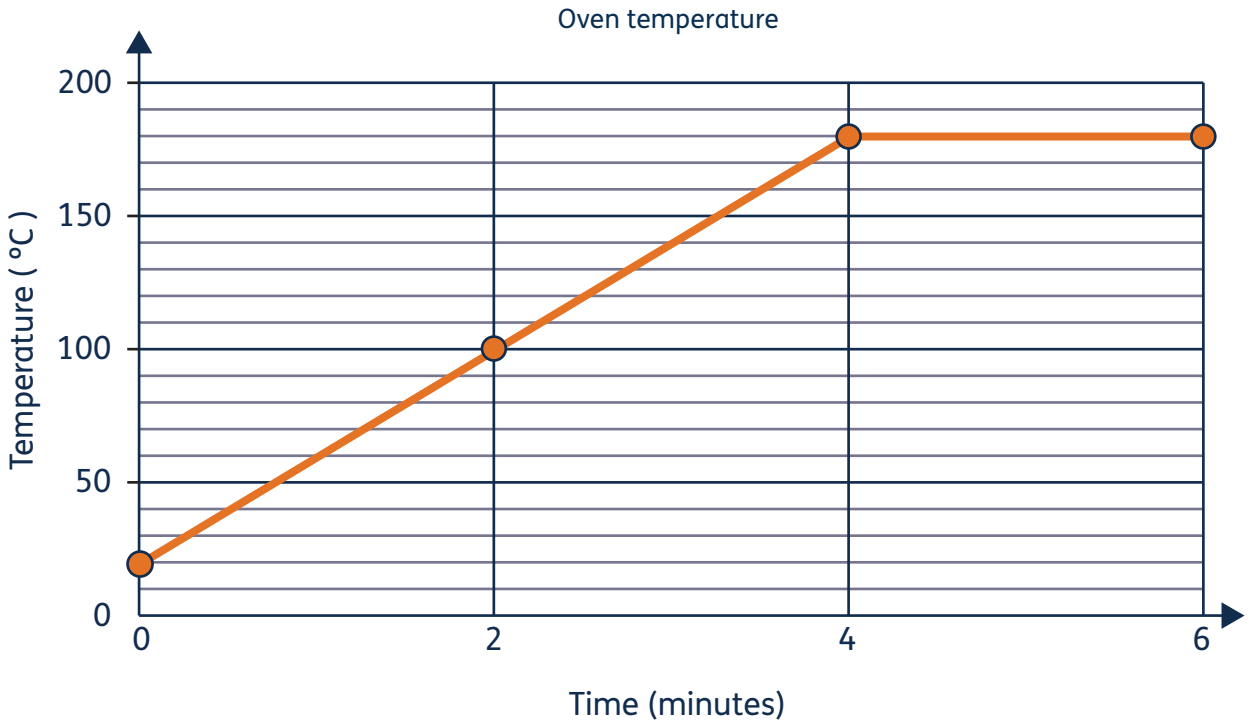
65

# Statistics

Answer sheet

## Question 4

This chart shows how the temperature changes when an oven is turned on.




Tick which sentences are true.

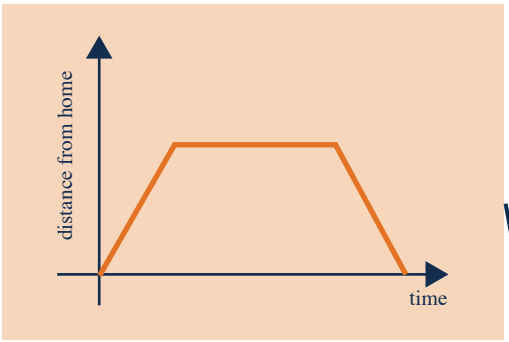
| | |
|---|---|
| The oven takes 4 minutes to warm up to 180 degrees. | ✓ |
| Before the oven is turned on, it is 0 degrees. | |
| After 2 minutes, the oven is 80 degrees. | |
| After 5 minutes, the oven starts to cool down. | |
| At 6 minutes, the oven is at the same temperature as it was at 4 minutes. | ✓ |

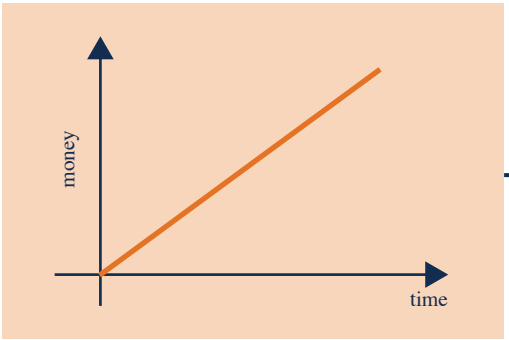
# Statistics

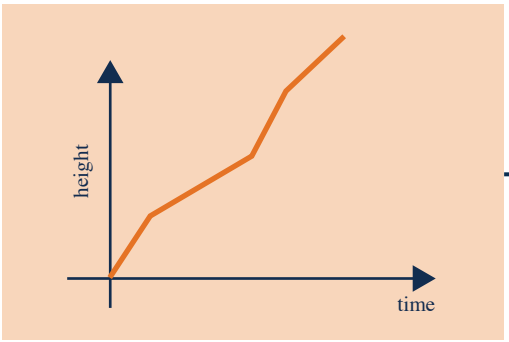
Answer sheet

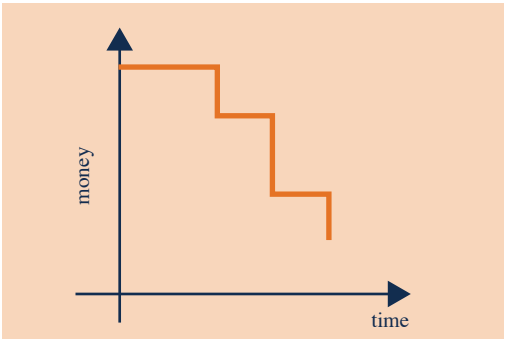
## Question 5

Here are some charts. Can you match them to the best heading?




A shopping trip

A charity fundraiser

A plant growing

A walk from my house to the park and back again

# Statistics

Answer sheet

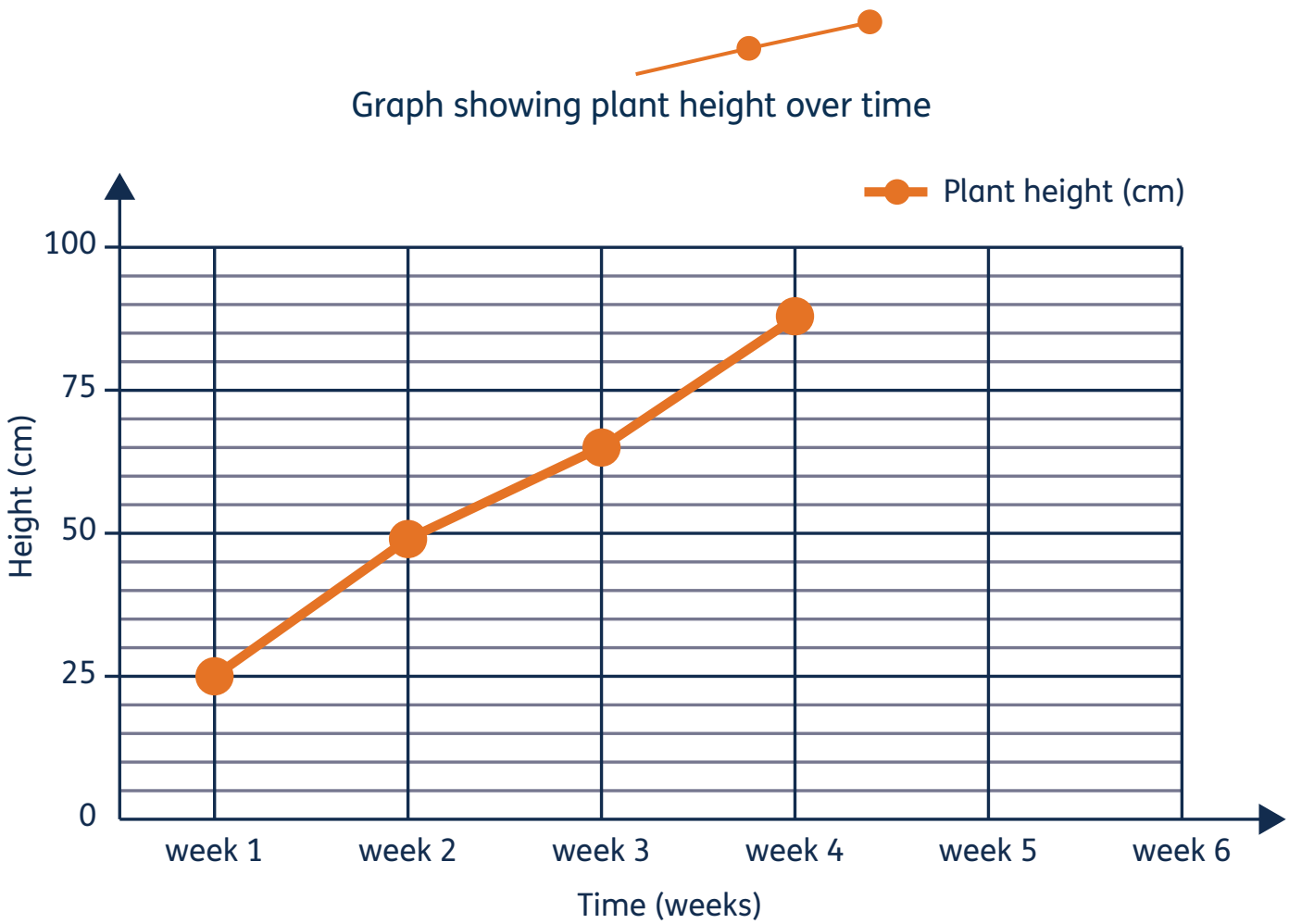
## Question 6

Ahmed is growing a sunflower. He measures it at the end of every week.

He started making a line graph. Can you finish off the line graph for Weeks 5 and 6?

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
|---|---|---|---|---|---|---|
| Height | 24 cm | 49 cm | 65 cm | 88 cm | 95 cm | 100 cm |

See the next page for questions about this graph.




Graph showing plant height over time

# Statistics

Answer sheet

MyMaths

**a** In which week did the sunflower grow the most?

Week 2 (25 cm)

**b** Here are some possible values for Week 7.

90 cm  97 cm  112 cm

Which value is most likely to be Ahmed's measurement in Week 7? Why?

112cm. The sunflower has steadily grown over the last 6 weeks, so it is likely that the sunflower will continue to grow.

Some children might argue the sunflower could have reached it's peak in week 6 and may have drooped. Usually, this process doesn't happen until roughly 100 days have passed.

**c** Ahmed says, "Between week 2 and week 6 the plant more than doubled in size." Is this true?

Yes

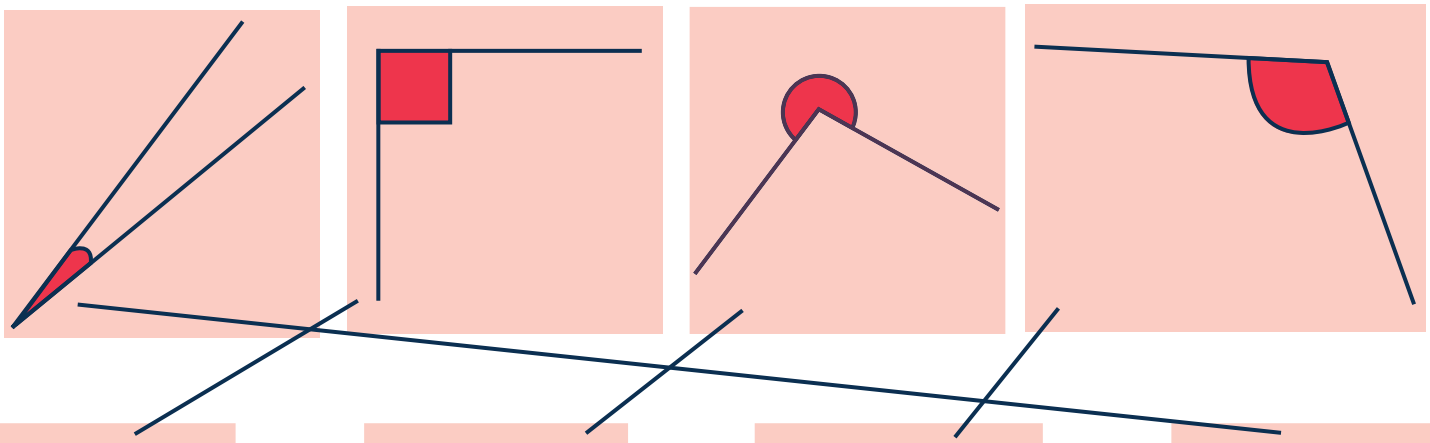
# Measuring angles

Answer sheet

MyMaths

## Question 1

Here are some angles. Can you match the angle with its name?



right angle

reflex angle

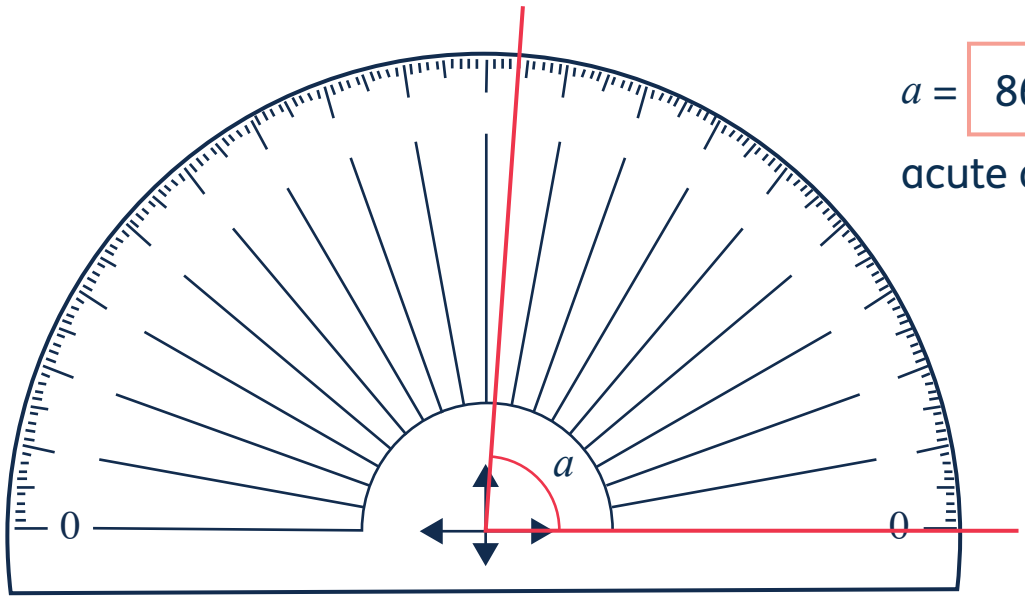
obtuse angle

acute angle

## Question 2

Here are some angles on protractors. What are their measurements? Are they obtuse, acute, right or reflex?

**a**




$a =$ 86 °

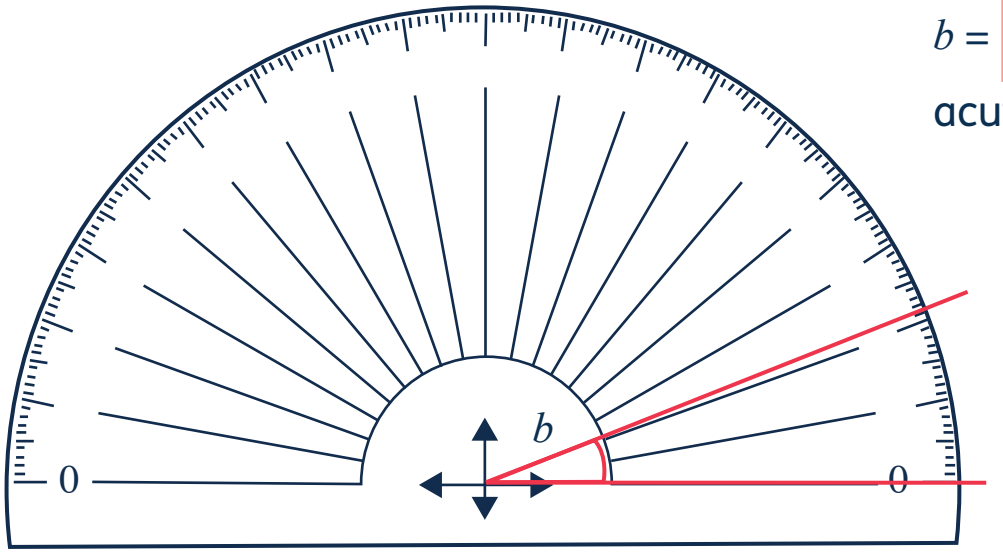
acute angle

# Measuring angles

Answer sheet

MyMaths

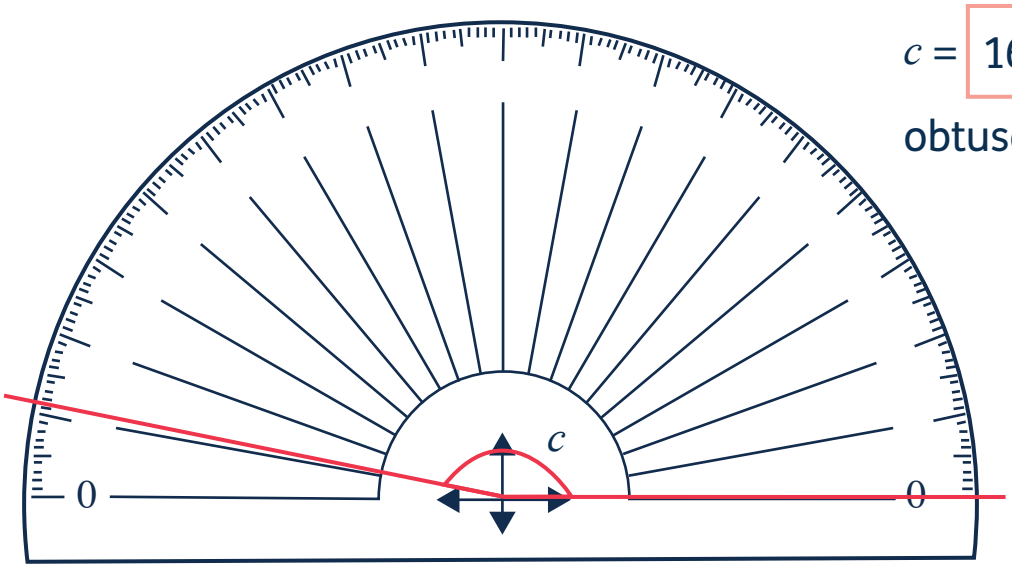
**b**




$b =$ 21 °

acute angle

**c**




$c =$ 168 °

obtuse angle

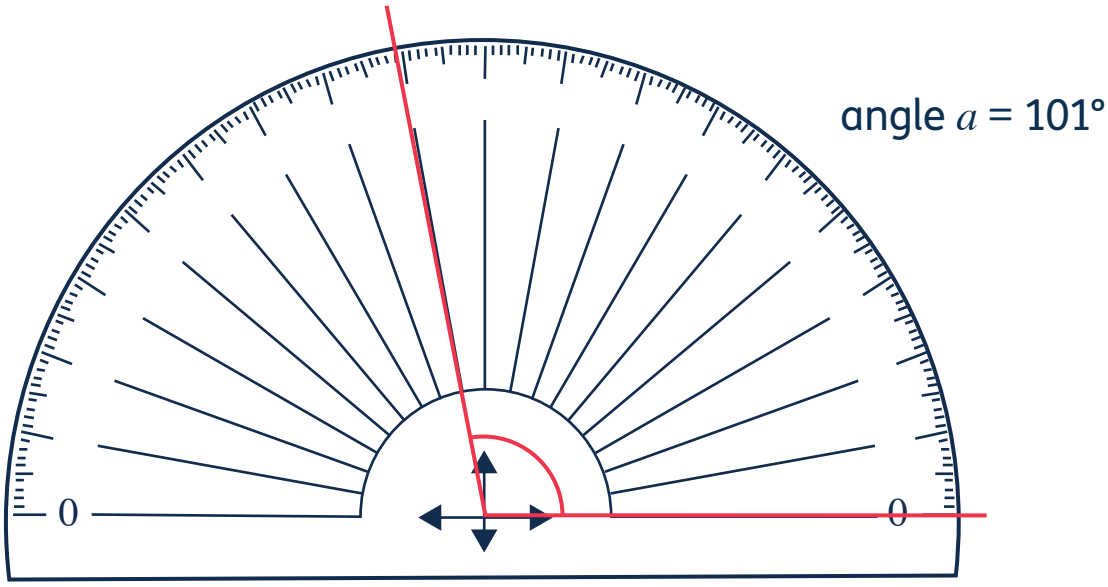
# Measuring angles

Answer sheet

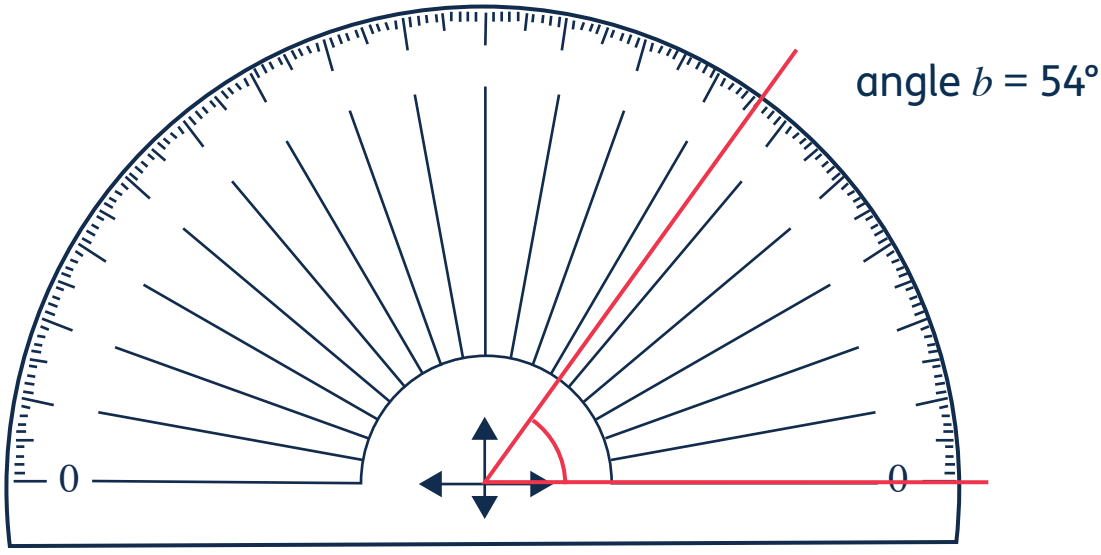
## Question 3

Draw and label the following angles on protractors.

**a** angle $a = 101°$



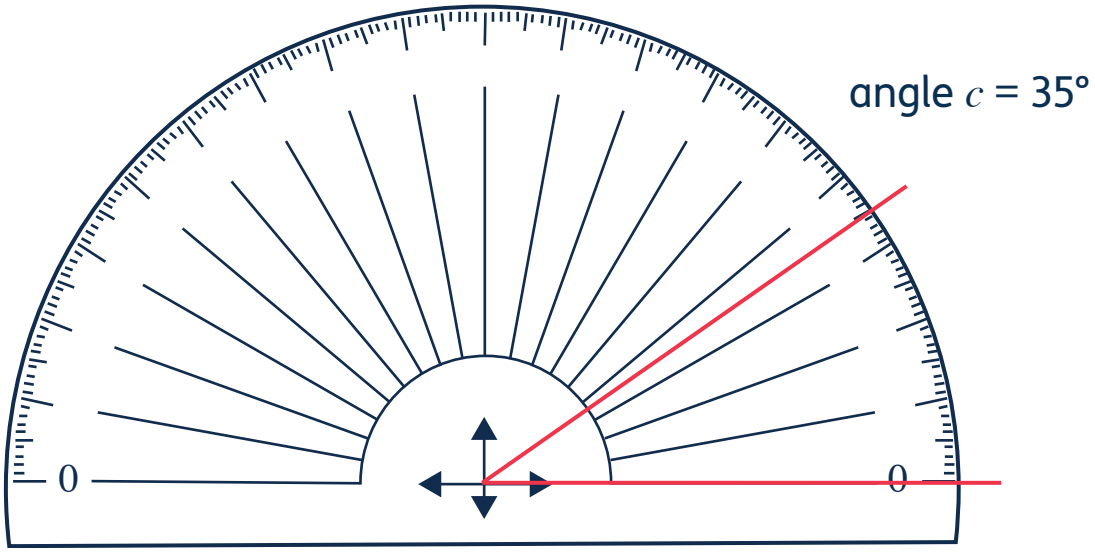

**b** angle $b = 54°$



# Measuring angles

Answer sheet

**c** angle $c = 35°$



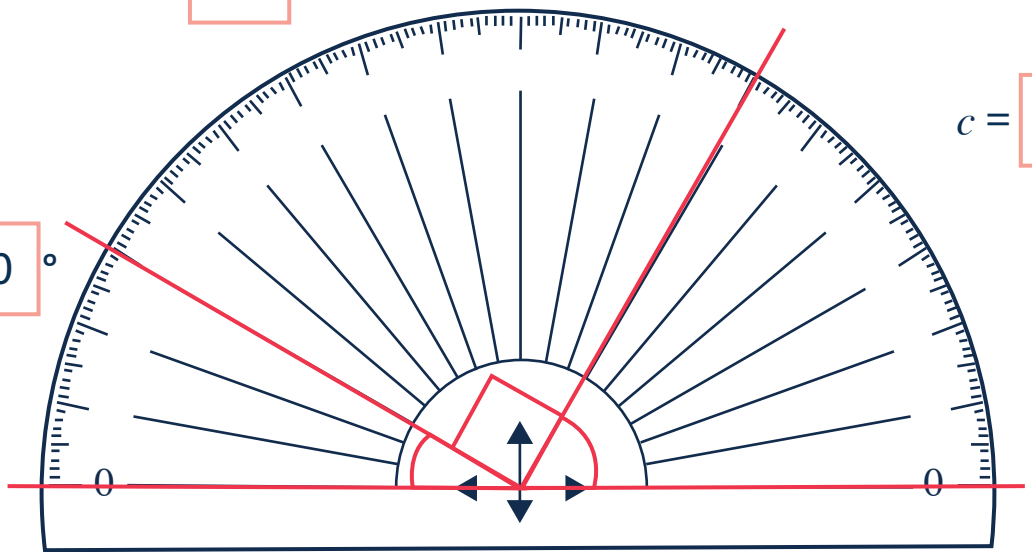

## Question 4

Here are three angles on a protractor. What are their measurements?

$b =$ 90 °

$a =$ 30 °

$c =$ 60 °



# Measuring angles

Answer sheet

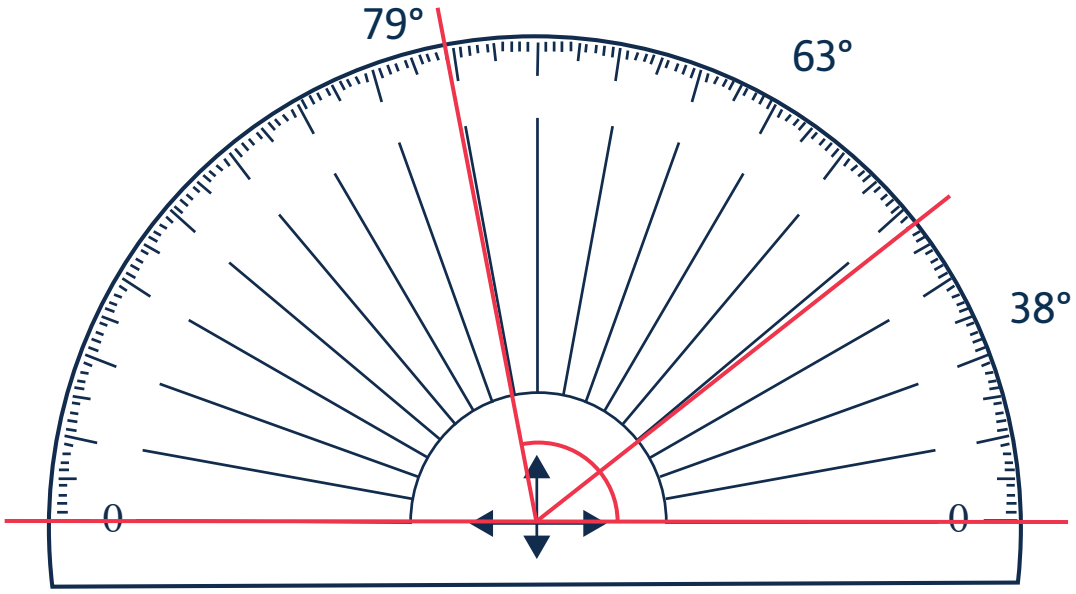
MyMaths

## Question 5

Here are some angle measurements. Draw three that fit together on a protractor to make exactly 180°.

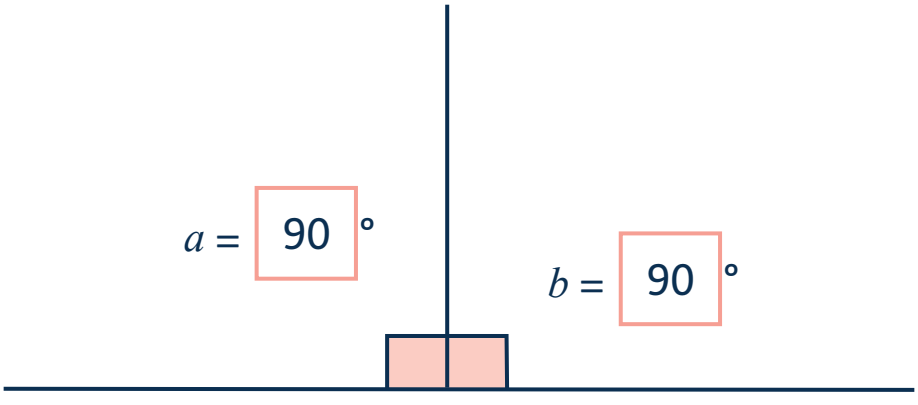
79° 38° 21° 33° 88° 150° 37° 63°

Drawn in any order e.g.



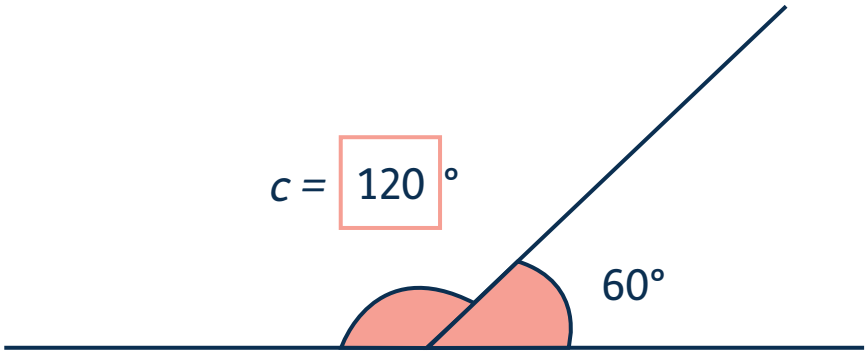

## Question 6

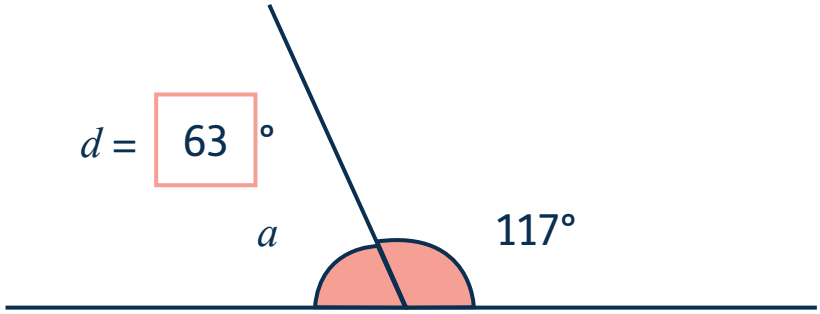
Here are some angles on straight lines. Find the missing angle in each one.

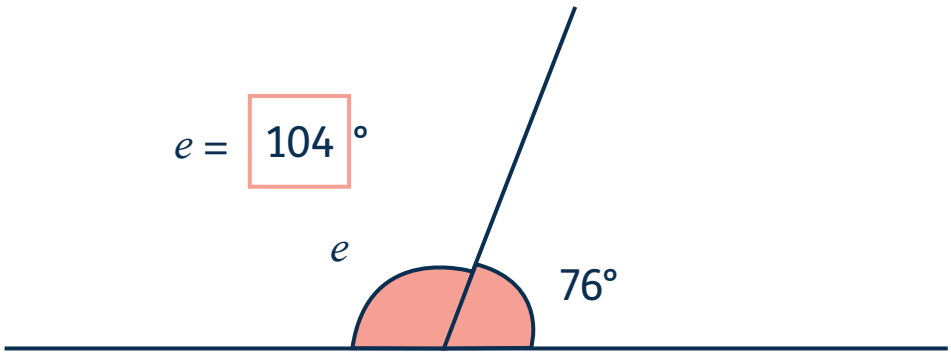


# Measuring angles

Answer sheet



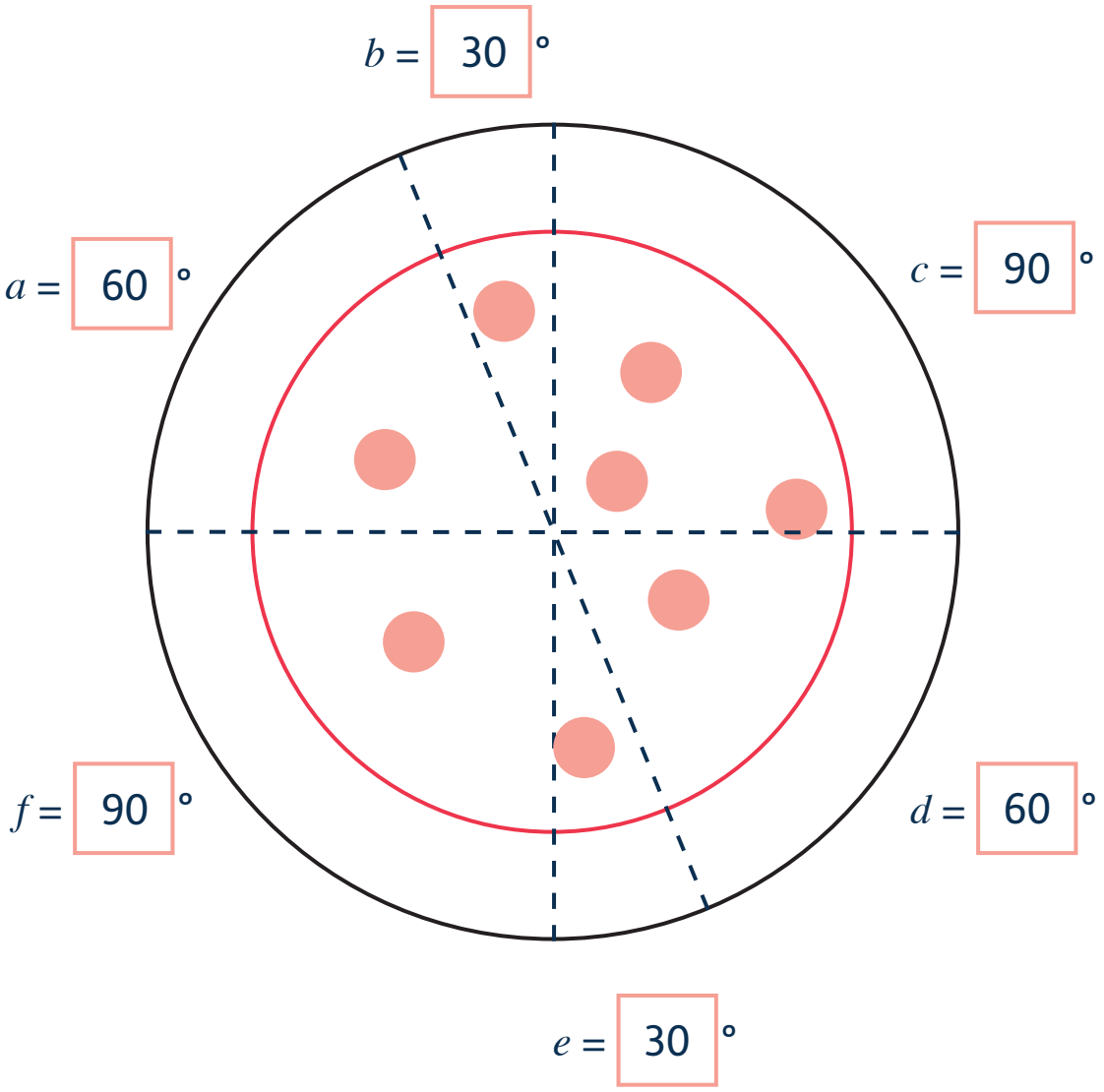



# Measuring angles

Answer sheet

## Question 7

Pavel is having a pizza party with his friends. Some people want big slices, some want small slices, some want medium slices.




Pavel says:

"There are three different sizes of slice. The smallest slices are 30°. The biggest slices are 90°."

Can you label each slice of pizza with its angle?

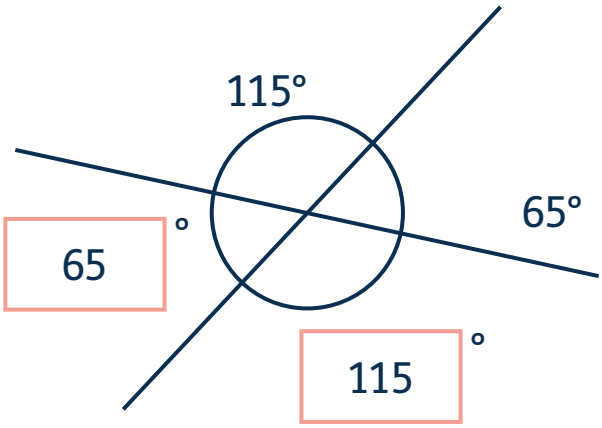
# Measuring angles

Answer sheet

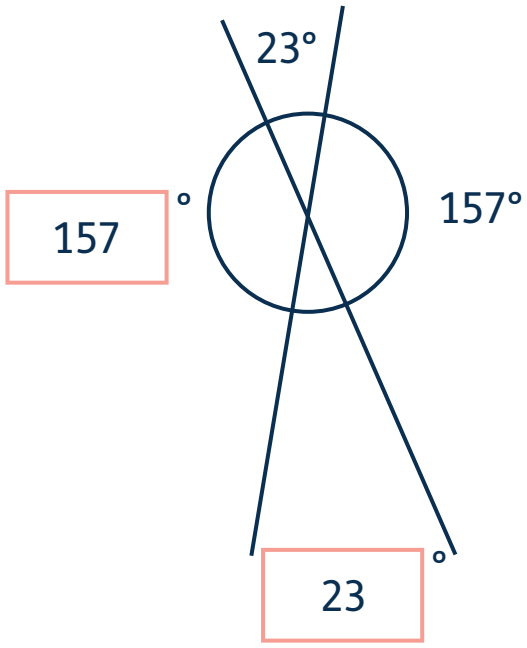
## Question 8

Fill in the missing angles around each point.

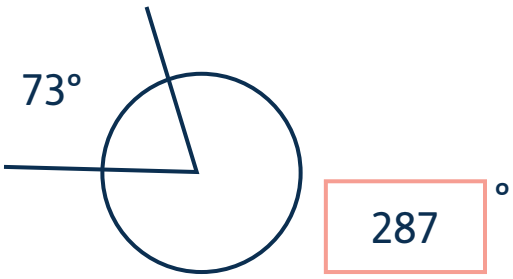
**a**




**b**




**c**



# Measuring angles

Answer sheet

## Question 9

**a** How many degrees does a clock's hands go round to complete a full turn?

360°

**b** How many minutes are there in a full turn of a clock's hour hand?

60

**c** How many degrees does the minute hand of a clock hand go through to move one minute?

6°

Can you work out the angles between the hands on these clock faces?

**d**

180 °

**e**

240 °

**f**

120 °

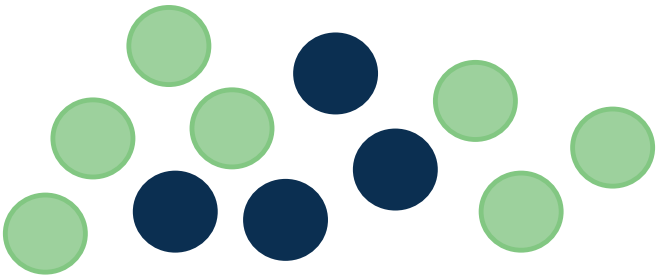
# Ratio

Answer sheet

MyMaths

## Question 1

Here are some green and blue counters. Fill in the gaps in the sentences.



four seven

4:7

For every _____ blue counters there are _____ green counters.

ratio green 7:4

The ratio of blue counters to green is _____.

The _____ of _____ counters to blue is _____.

| | | | | | |
|---|---|---|---|---|---|
| **four** | **seven** | **ratio** | **4:7** | **green** | **7:4** |

# Ratio

Answer sheet

MyMaths

## Question 2

A necklace is made using a repeating pattern of green and blue beads.

Can you complete the table to show the equivalent ratios of green to blue beads?

| Green beads | Blue beads | Total beads |
|---|---|---|
| 1 | 3 | 4 |
| 2 | 6 | 8 |
| 3 | 9 | 12 |
| 4 | 12 | 16 |
| 5 | 15 | 20 |
| 8 | 24 | 32 |
| 10 | 30 | 40 |
| 20 | 60 | 80 |

Complete this sentence:

For every green bead there are 3 blue beads.

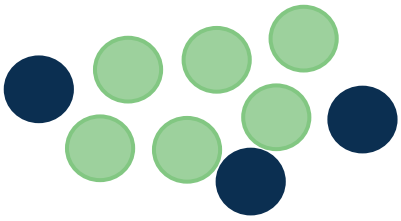
The ratio of green beads to blue beads is 1 : 3.

# Ratio

Answer sheet

## Question 3

Write out the ratio of blue counters to green in these four piles.



**a** 3 : 6

or 1 : 2

**b** 2 : 5

**c** 5 : 8

**d** 5 : 10 or 1 : 2

Which two piles have the same ratio? a & d (1:2)





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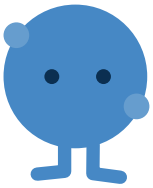
# Ratio

Answer sheet

MyMaths

## Question 4



The proportion of blue-eyed children to non blue-eyed children in the class is 3:5

There are 9 blue-eyed children in the class.
How big is the class?

The ratio of blue-eyed to non blue-eyed children is 3 : 5.

If 9 children have blue eyes, there must be 15 children with non blue eyes.

$9 + 15 = 24$

There are 24 children in the class.

Ada has 66 counters in 3 different colours. She decides to split them between three different-coloured piles.
The ratio is 1:2:8

How many counters are in each pile?

Total number of piles
$= 1 + 2 + 8 = 11$

$66 \div 11 = 6$ counters per pile

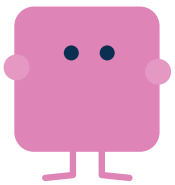
$6 \times 1 = 6$, $6 \times 2 = 12$,
$6 \times 8 = 48$

There are 6, 12, and 48 counters in each pile

# Ratio

Answer sheet

MyMaths



A fruit salad recipe serves six and needs 2 bananas. Jackson wants to make fruit salad for 24 people. How many bananas should he buy?

The ratio of bananas to fruit salad is 2 : 6.

Jackson wants to make enough fruit salad for 24.

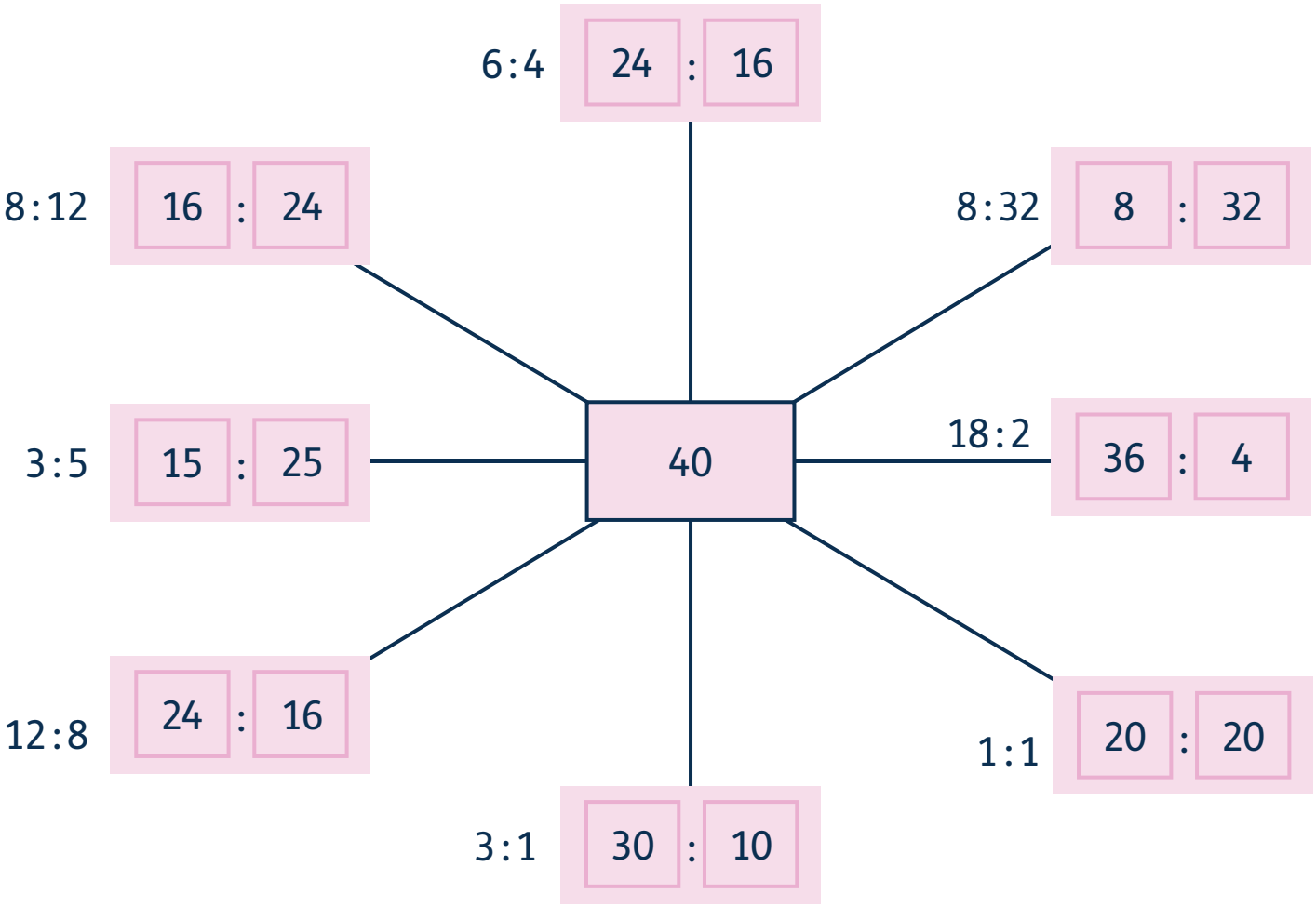
$6 \times 4 = 24$

$2 \times 4 = 8$

Jackson needs 8 bananas

## Question 5

a Divide 40 into the given ratios.





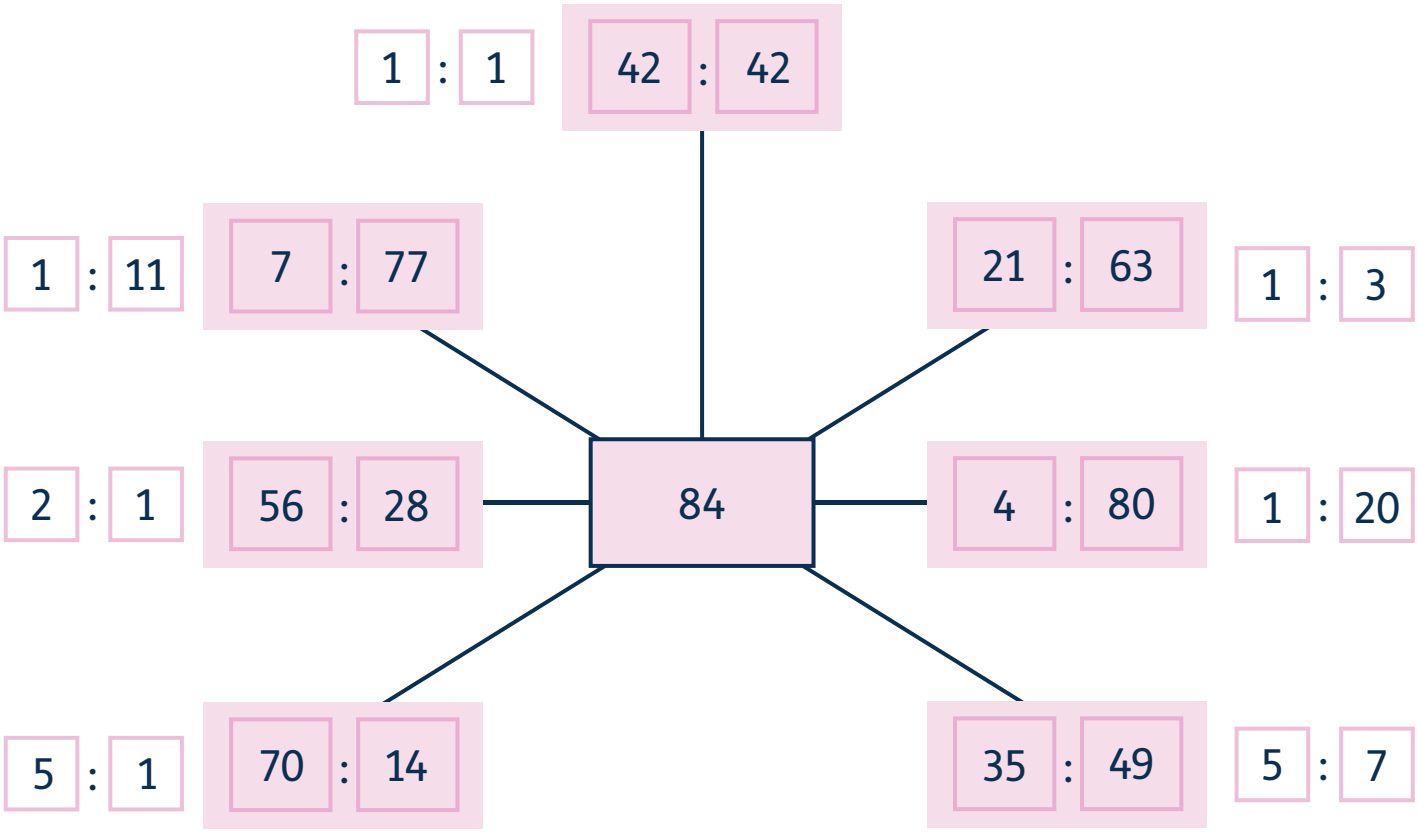

For further practice, log in to **www.mymaths.co.uk** to access our WR Summer term booster pack

# Ratio

Answer sheet

MyMaths

**b** Can you complete this example?



# Ratio

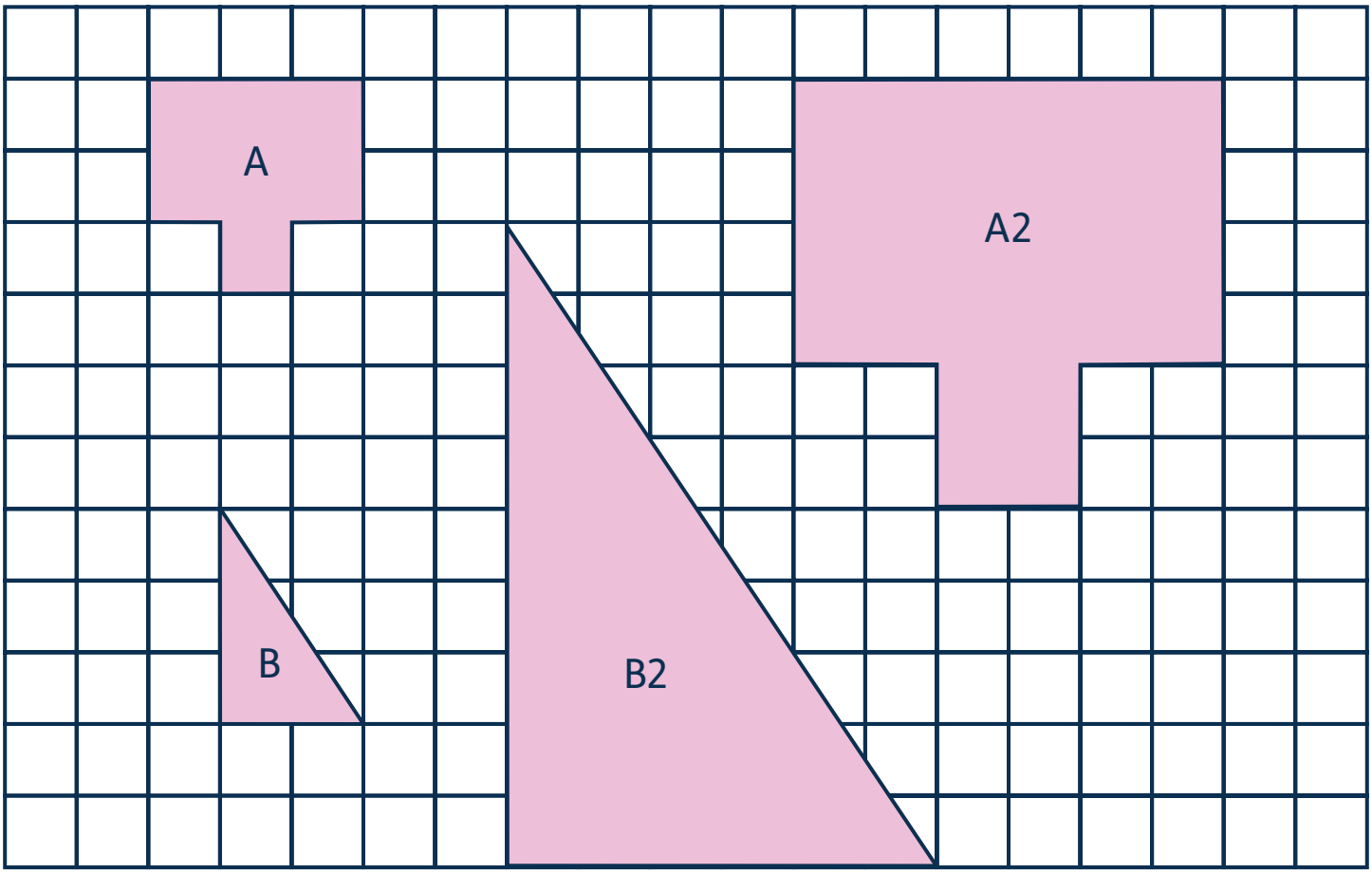
Answer sheet

MyMaths

## Question 6

Here are some shapes on a grid. Each square on the grid represents 1 m²

□ = 1 m²




**a** Enlarge Shape A by a scale factor of 2.

**b** Enlarge Shape B by a scale factor of 3.

**c** What are the areas of your two new shapes?

A2 28 m²
B2 27 m²

# Ratio

Answer sheet

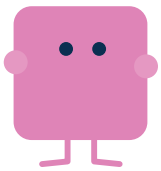
MyMaths

## Question 7

The toy shop sells dolls house furniture. Work out the missing lengths for the real and model furniture.

| Item | Scale | Real height | Model height |
|---|---|---|---|
| Table | 1 cm to 24 cm | 84 cm | 3.5 cm |
| Grandfather clock | 1 cm to 25 cm | 2 m | 8 cm |
| Stool | 1 cm to 10 cm | 60 cm | 60 mm |
| Dining chair | 1 cm to 8 cm | 130 cm | 16.25 cm |
| Garden shed | 1 cm to 10 cm | 2.5 m | 25 cm |
| Vase | 1 cm to 12 cm | 43.2 cm | 36 mm |

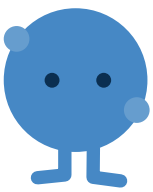
## Question 8



On a walker's map, 1 cm = 0.5 km. What is this scale as a ratio?

0.5 km = 500 m = 50,000 cm

1 : 50,000



On a town plan, a park is 3.5 cm long and 4.2 cm wide. The scale of the plan is 1 cm = 500 m.

What is the area of the actual park in $km^2$?

$3.5 \times 0.5\ km = 1.75\ km$

$4.2 \times 0.5\ km = 2.1\ km$

$1.75 \times 2.1 = 3.675\ km^2$