



# Mathematics

Stage 5

Paper 2

2023

## Cambridge Primary Progression Test

Name

Class

Date

**45 minutes**

Additional materials: Calculator  
Set square  
Tracing paper (optional)

### INSTRUCTIONS

- Answer **all** questions.
- Write your answer to each question in the space provided.
- You should show all your working on the question paper.
- You may use a calculator.

### INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [ ].

- 1 Write a decimal number between 2 and 3 which has exactly 3 tenths and 5 hundredths.

..... [1]

- 2 Draw lines to match each fraction to an equivalent percentage.

25%

60%

$\frac{15}{25}$

35%

$\frac{7}{20}$

$\frac{1}{4}$

[1]

- 3 Write the numbers in order from smallest to largest.

7.8

8.6

6.8

7.6

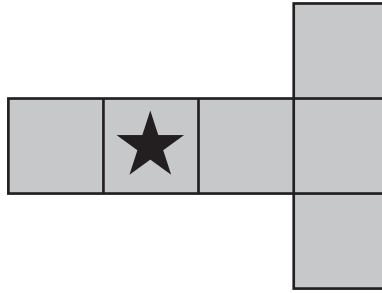
8.7

.....  
smallest

.....  
largest

[1]

- 4 Mia makes a cube from this net.



Tick (✓) the face that is opposite the star when the cube is made.

[1]

- 5 Carlos counts back from 10 in steps of 3  
Samira counts back from 5 in steps of 5

Write the first number that they both say.



..... [1]

- 6 Draw a line to match each activity to the time it is likely to take.  
One has been done for you.

popping a balloon

boiling a kettle

clapping your hands once

saying the word 'Hi'

washing your hands

less than a second

more than a second

[1]

- 7 Rajiv has ten donkeys.  
He shares three bags of food equally between his donkeys.

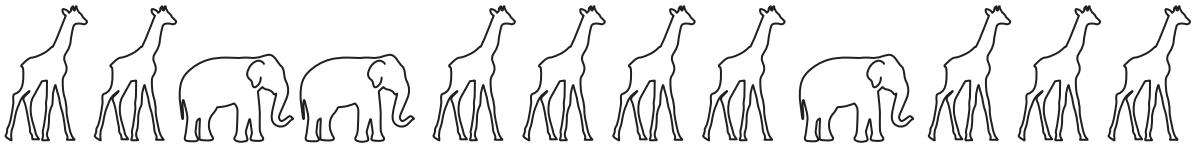
Rajiv says,

'In total each donkey will get ..... of a bag of food.'

Write a fraction on the answer line to complete Rajiv's sentence.

[1]

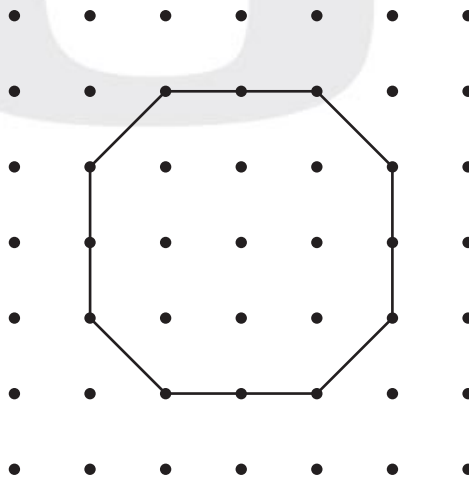
- 8 Youssef puts some toy animals in a line.



Write the ratio of giraffes to elephants.

..... : ..... [1]

- 9 Here is an octagon.



Anastasia draws **two** straight lines inside the octagon to make two triangles and a third shape.

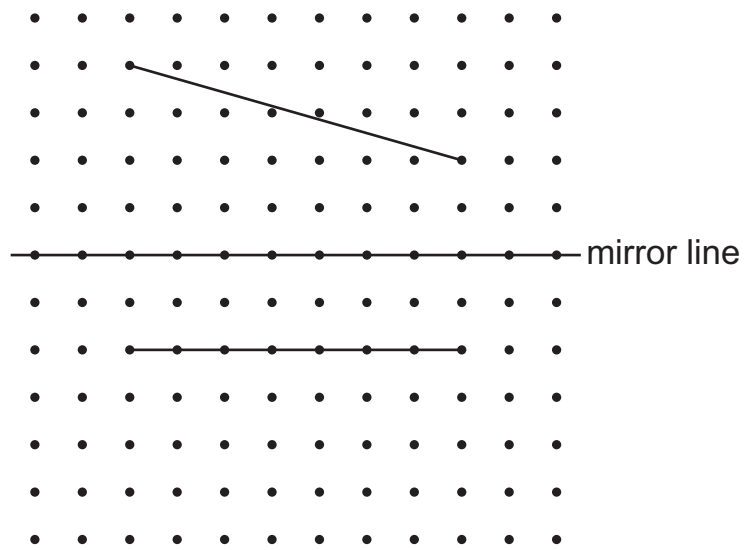
Both lines start and finish at a vertex.

The lines do **not** cross.

Write the name of the third shape Anastasia makes inside the octagon.

..... [1]

- 10 Here is a dotted grid.  
Angelique reflects a triangle in the mirror line.



Complete **both** triangles.  
Use a ruler.

[1]

- 11 Calculate.

$$\frac{3}{8} - \frac{1}{4}$$

[1]

.....

- 12** A radio station plays eight songs.  
The table shows the length of time each song plays.

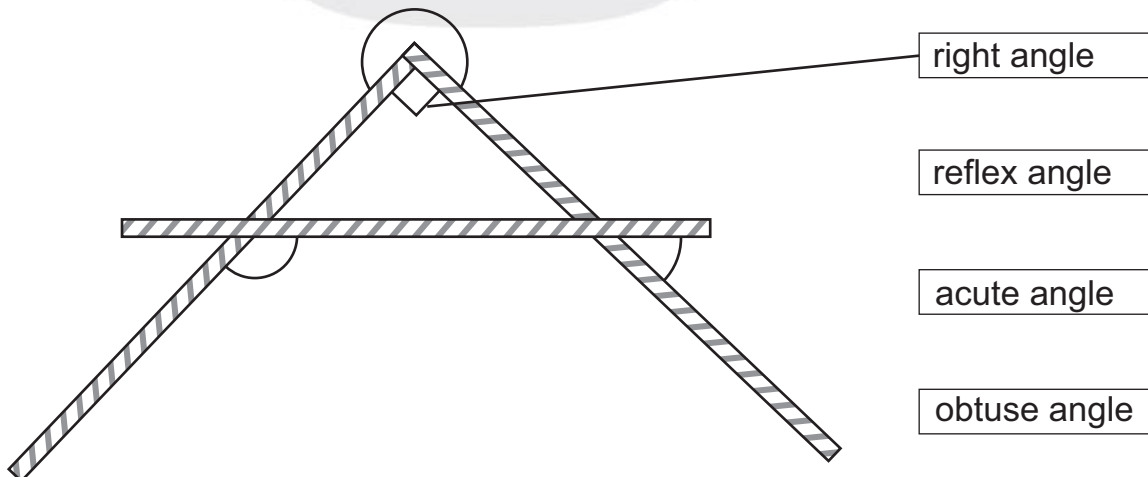
Song title	Time in seconds
Happy	150
The long walk	200
Jump and sing	100
Smile at me	120
Hip hop beat	180
Sunny salsa song	150
Dance with me	200
Moon and stars	200

Write the mode of the time.

..... seconds [1]

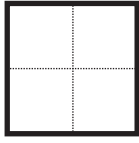
- 13** Ahmed arranges straws on his desk to make four different angles.  
The angles are marked on the diagram.

Draw a line to match each angle to the correct description.  
One has been done for you.



[1]

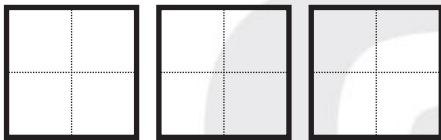
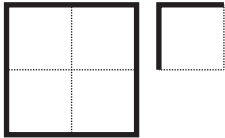
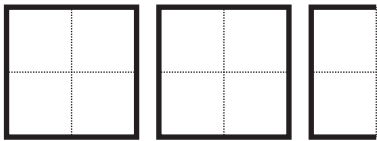
14 Here is a whole square.



Draw lines to match **each** diagram to the **two** equivalent number of squares it represents.

Diagram

Number of squares



3

$\frac{5}{4}$

$2\frac{1}{2}$

$1\frac{1}{4}$

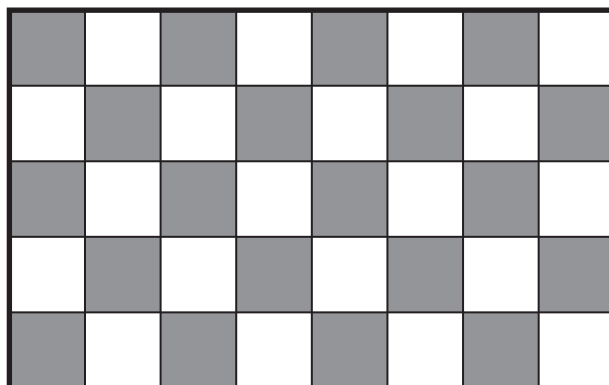
$\frac{10}{4}$

$\frac{12}{4}$

[2]

15 Here is a rectangle made with white squares and shaded squares.

Draw any lines of symmetry on the rectangle.



[1]

**16** Write a number in each box to make each sentence correct.

35.1 rounded to the nearest whole number is

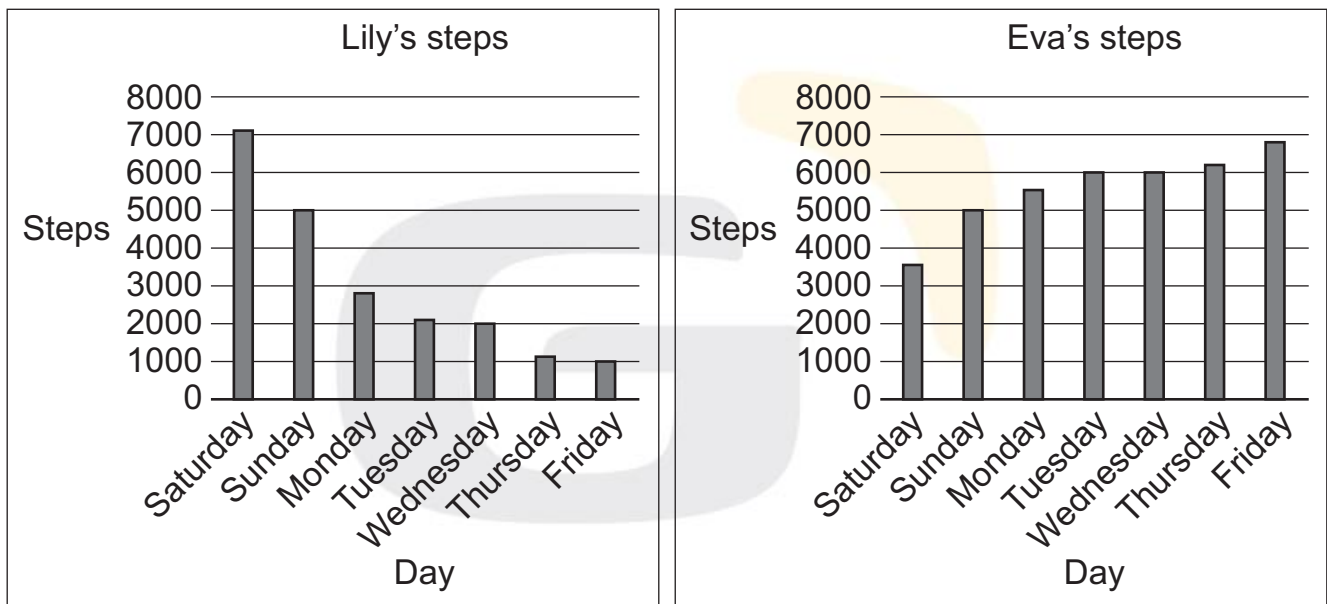
58.  rounded to the nearest whole number is 59

24.5 rounded to the nearest whole number is

0.  rounded to the nearest whole number is 0

[2]

**17** Lily and Eva record the number of steps they walk each day for one week. Here are their results.



**(a)** Write the day that Lily and Eva both walk the same number of steps.

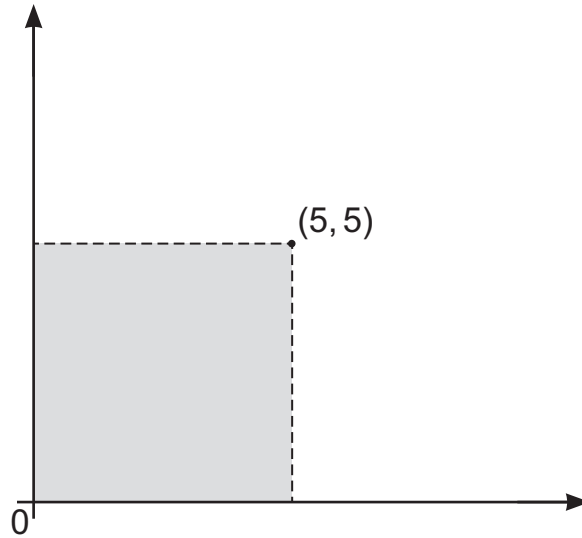
..... [1]

**(b)** Write a statement to describe the pattern of the number of steps Lily walks during the week.

.....  
 ..... [1]



- 18** Here is a square drawn on a coordinate grid.  
The coordinates of one vertex of the square are given.



Here are some coordinates.

Draw a ring around **all** the coordinates that are points inside the square.

(2, 3)      (4, 6)      (7, 4)      (3, 4)      (1, 7)

[1]

- 19** Pierre writes a prime number in the box.

$$25 < \boxed{\phantom{00}} < 40$$

Write **all** the prime numbers that Pierre could write to make this statement correct.

..... [1]

- 20** Gabriella has a bag of small square tiles.  
 She uses some of the tiles to make a large square.  
 She adds 11 more tiles to make a new square.

Write the **total** number of tiles Gabriella uses to make the new square.

..... tiles [1]

- 21** Carlos uses counters to show the number 0.58 on the chart.

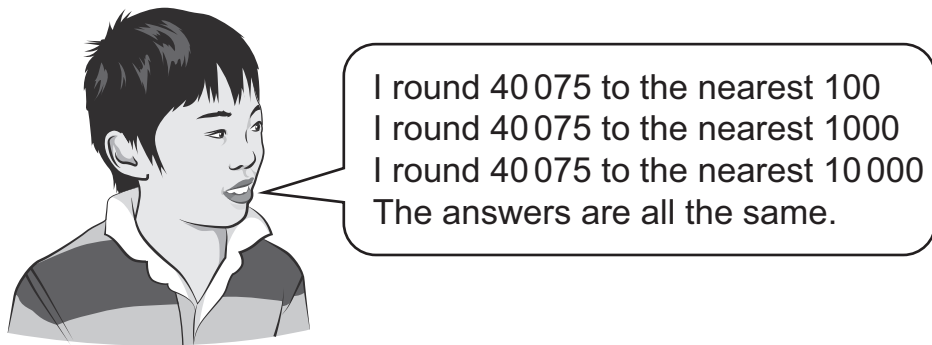
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	●	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009

Carlos multiplies 0.58 by 10

Draw counters on the chart to show his answer.

[1]

**22** The distance around the equator is 40 075 kilometres.



Tick (✓) to show if Chen is correct.

Yes ☐ No ☐

Explain your answer.

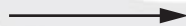
.....

.....

..... [1]

**23** Write a number on each answer line to complete the statements.

is equivalent to



2.5 minutes



..... seconds

1½ days



..... hours

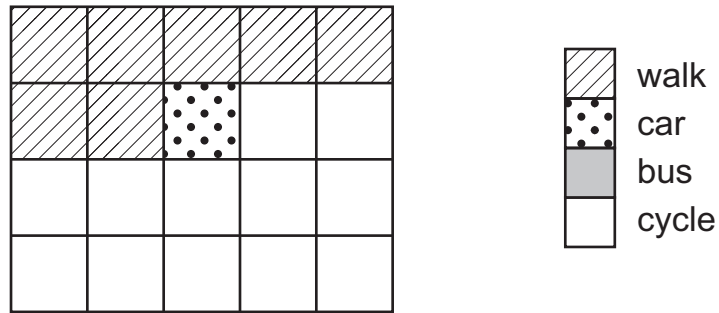
0.75 hours



..... minutes

[2]

- 24 The 80 children in Year 5 complete a survey about how they travel to school. The waffle diagram shows some of the survey results.



12 children travel to school by bus.

Complete the waffle diagram.

[1]

25

☐ and represent two **different** odd numbers.

Safia writes,  $\square + \square + \star =$

She says,

'The answer could be odd or even.'

Tick (✓) to show if Safia is correct.

Yes ☐ No ☐

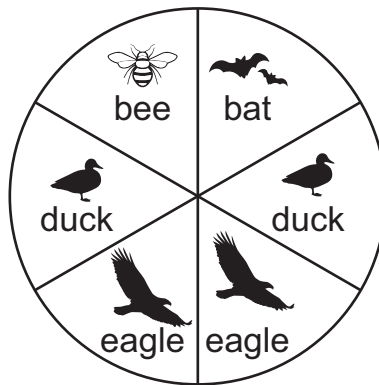
Explain your answer.

.....

.....

..... [1]

- 26** Mike has a spinner with six equal sections. Each section shows a type of animal. Eagles and ducks are both birds.



- (a)** Mike spins the spinner once.

Draw a line to match each event to the correct likelihood. One has been done for you.

spinning an animal with wings	spinning a bee	spinning a bird	spinning a lion
-------------------------------	----------------	-----------------	-----------------

impossible  
 |  
 —————  
 |  
 unlikely

even  
 chance  
 |  
 —————  
 |  
 likely

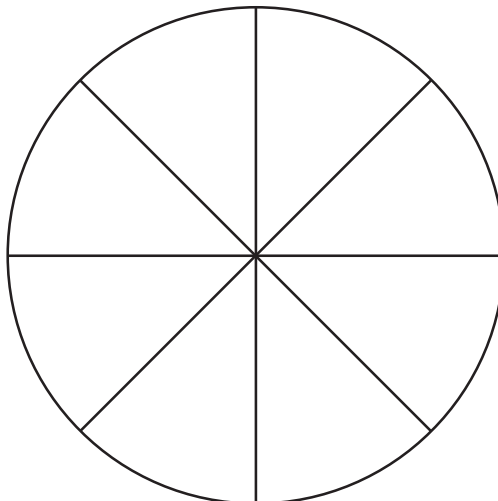
certain  
 |  
 —————  
 |  
 |

[1]

- (b)** Mike makes a new spinner with eight sections. Mike says,

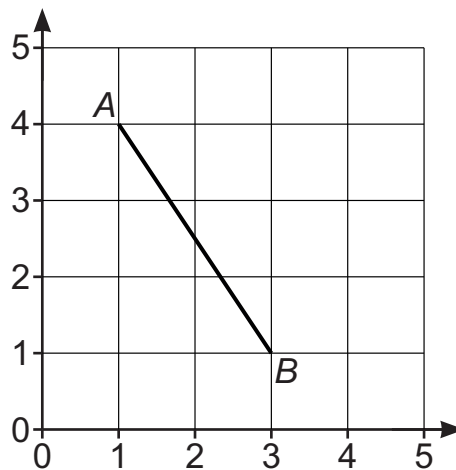
‘On this spinner, spinning a bee or a bat is an equally likely outcome **and** the least likely outcome is to spin a duck. There are no eagles on my spinner.’

Write the names of the animals on Mike’s new spinner.



[1]

27 Here is a line drawn on a coordinate grid.

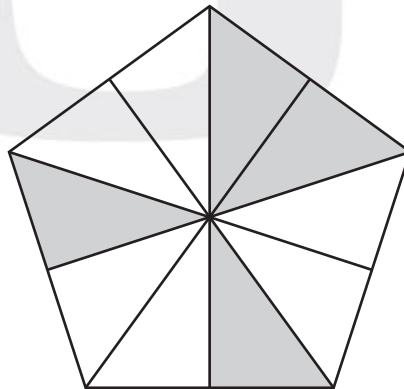


$ABC$  is a right-angled triangle.

Write the **two** possible coordinates for point  $C$ .

( ..... , ..... ) or ( ..... , ..... ) [2]

28 Here is a regular pentagon.



Write the percentage of the pentagon that is shaded.

..... % [1]

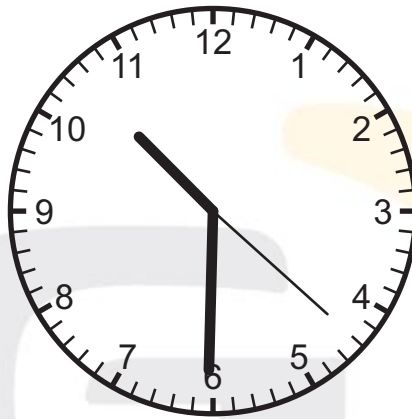
- 29** Jamila makes a number sequence using number cards.  
The numbers on the cards decrease by the same amount each time.

Write a number on each card to show the missing numbers in her sequence.

9.5			2	
-----	--	--	---	--

[2]

- 30** It takes Yuri 50 seconds to say the alphabet.  
The clock shows the time that Yuri finishes saying the alphabet.



Write the time that Yuri started saying the alphabet.

.....	:	.....	:	.....
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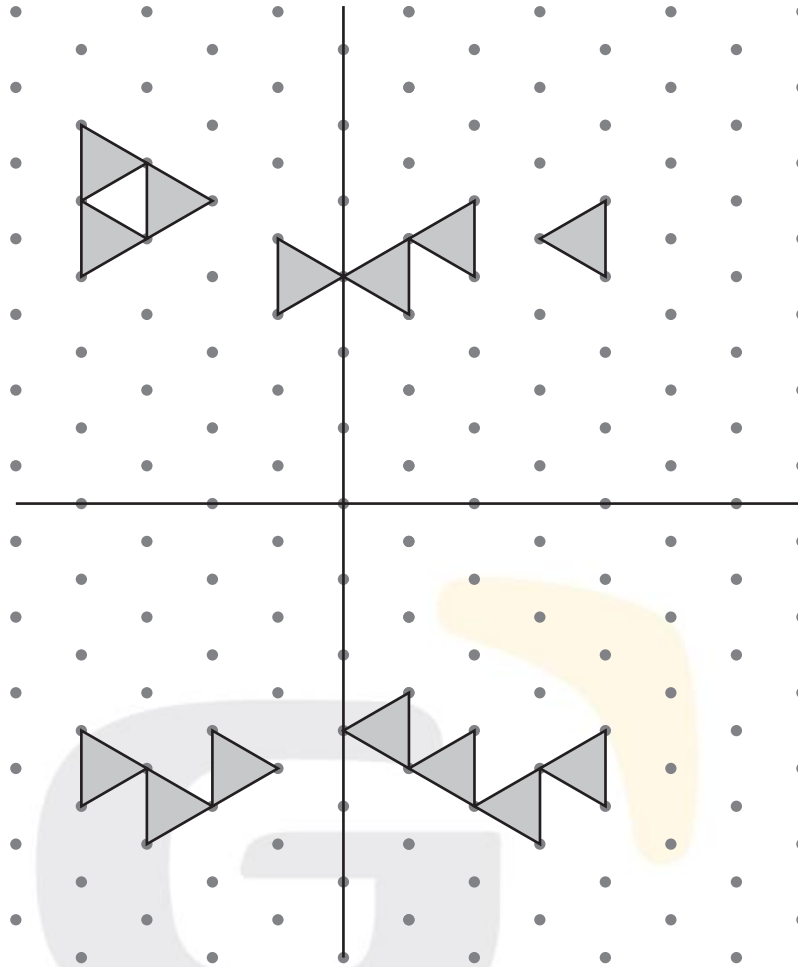
[1]

- 31** Naomi has 100 square tiles.  
She uses all of her tiles to make two squares.

Write the number of tiles in each of her squares.

	tiles
	tiles [1]

**32** Draw **six** more triangles on the grid to complete a symmetrical pattern with two lines of symmetry.



[2]