

Year 6 Autumn 2 Maths Activity Mat 3

Section 1

Round the following numbers to the nearest 1 million

7 231 723 →

2 500 000 →

6 499 999 →

Section 2

Use this Carroll diagram to write the common factors of 12 and 15.

	Factors of 12	Not Factors of 12
Factors of 15		
Not factors of 15		

Section 3

Double a number is 74.
What is the number?

Section 4

Calculate:

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

$$\frac{1}{2} \times \frac{1}{4} =$$

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

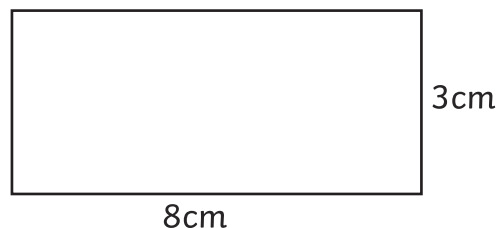
Section 5

Calculate, writing the answer to one decimal place:

5	1	7	4						

Section 6

Calculate the area and perimeter of the following rectangle.



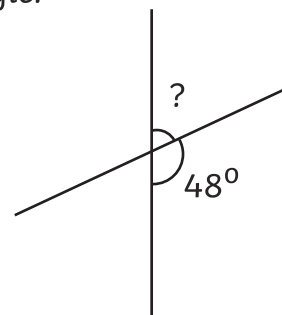
(Not to scale.)

Area =

Perimeter =

Section 7

Calculate the unknown angle.



(Not to scale.)

Section 8

Find 3 pairs of numbers that satisfy these equations:

$$a + b = 12$$

$$c - d = 9$$

Year 6 Autumn 2 Maths Activity Mat 3 **Answers**

Section 1

Round the following numbers to the nearest 1 million

7 231 723 → 7 000 000

2 500 000 → 3 000 000

6 499 999 \rightarrow 6 000 000

Section 2

Use this Carroll diagram to write the common factors of 12 and 15.

	Factors of 12	Not Factors of 12
Factors of 15	1, 3	5, 15
Not factors of 15	2,4,6, 12	<i>7, 8, 9, 10, 11, 13 and higher</i>

Numbers in italics are possible, but not necessary.

Section 3

Double a number is 74. What is the number?

37

Section 4

Calculate:

$$\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$$

$$\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

$$\frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$$

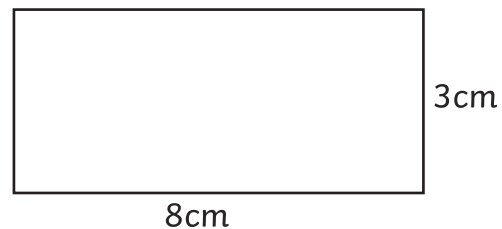
Section 5

Calculate, writing the answer to one decimal place:

			3	4	.8
5	1	7	4		

Section 6

Calculate the area and perimeter of the following rectangle.



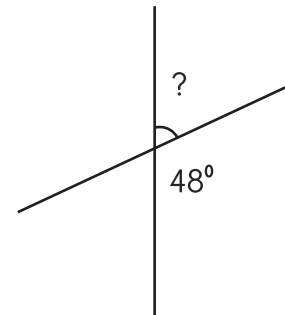
(Not to scale.)

Area = 24cm²

Perimeter = 22cm

Section 7

Calculate the unknown angle.



(Not to scale.)

132°

Section 8

Find 3 pairs of numbers that satisfy these equations:

$$a + b = 12$$

$$c - d = 9$$

A range of answers. Here are some examples:

a = 11, b = 1; a = 10, b = 2; a = 9, b = 3, c = 10, d = 1; c = 11, d = 2; c = 12, d = 3

Year 6 Autumn 2 Maths Activity Mat 3

Section 1

Round the following numbers to the nearest ten million

89 142 735 →

25 000 000 →

64 500 000 →

Section 2

Use this Carroll diagram to write the common factors of 15 and 36.

	Factors of 15	Not Factors of 15
Factors of 36		
Not factors of 36		

Section 3

What number, when doubled, is one third of 54?

Section 4

Complete the missing denominators:

$$\frac{1}{2} \times \frac{1}{\square} = \frac{1}{12}$$

$$\frac{1}{\square} \times \frac{2}{3} = \frac{2}{15}$$

$$\frac{3}{4} \times \frac{2}{\square} = \frac{3}{10}$$

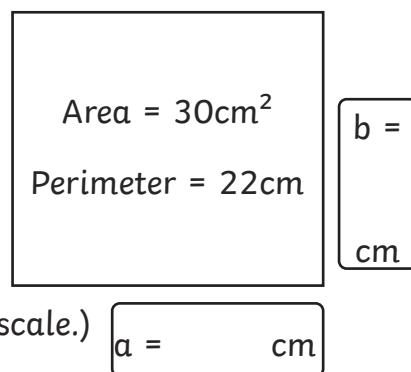
Section 5

Calculate, writing the answer to one decimal place:

8	7	1	4		

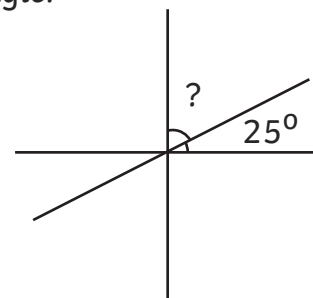
Section 6

Write possible measurements for the sides of this rectangle.



Section 7

Calculate the unknown angle.



(Not to scale.)

Section 8

Find 3 pairs of numbers that satisfy these equations:

$$a - 2b = 4$$

$$2c + 2d = 12$$

Year 6 Autumn 2 Maths Activity Mat 3 **Answers**

Section 1

Round the following numbers to the nearest ten million

89 142 735 → **90 000 000**

25 000 000 → **30 000 000**

64 500 000 → **60 000 000**

Section 2

Use this Carroll diagram to write the common factors of 15 and 36.

	Factors of 15	Not Factors of 15
Factors of 36	1, 3	2, 4, 6, 9, 12, 18, 36
Not factors of 36	5, 15	<i>7, 8, 9, 10, 11, 13, 14, 16, 17, 19 - 35, 37 and higher</i>

Numbers in italics are possible, but not necessary.

Section 3

What number, when doubled, is one third of 54?

9

Section 4

Complete the missing denominators:

$$\frac{1}{2} \times \frac{1}{6} = \frac{1}{12}$$

$$\frac{1}{5} \times \frac{2}{3} = \frac{2}{15}$$

$$\frac{3}{4} \times \frac{2}{5} = \frac{3}{10}$$

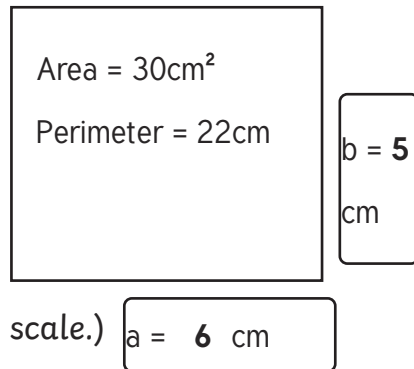
Section 5

Calculate, writing the answer to one decimal place:

		8	9	.	2
8	7	1	4		

Section 6

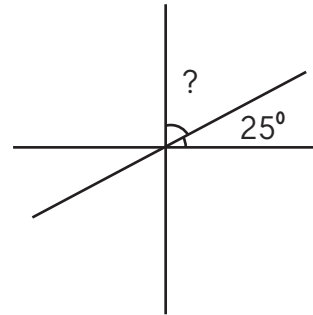
Write possible measurements for the sides of this rectangle.



(Not to scale.)

Section 7

Calculate the unknown angle.



(Not to scale.)

65⁰

Section 8

Find 3 pairs of numbers that satisfy these equations:

$$a - 2b = 4$$

$$2c + 2d = 12$$

A range of answers. Here are some examples:

a = 6, b = 1; a = 8, b = 2; a = 10, b = 3; c = 1, d = 5; c = 2, d = 4; c = 3, d = 3

Year 6 Autumn 2 Maths Activity Mat 3

Section 1

Round the following numbers to the nearest two million:

23 691 001 →

13 000 020 →

32 950 000 →

Section 2

Draw a Carroll diagram to find the common factors of 16 and 45.

Section 3

What number, when doubled, is 70% of the product of 12 and 7?

Section 4

Calculate

$$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} =$$

$$\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} \times \frac{4}{5} \times \frac{5}{6} =$$

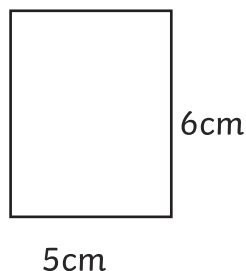
Section 5

Calculate, writing the answer as a decimal rounded to 2 decimal places:

1	2	8	5	6			

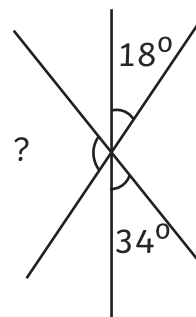
Section 6

Draw (not to scale) a rectangle with the same area as this rectangle, but with a different perimeter. Label the length of the sides.



Section 7

Calculate the unknown angle.



(Not to scale.)

Section 8

Find 3 pairs of numbers that satisfy these equations:

$$a - 3b = 7$$

$$5c + 2d = 21$$

Year 6 Autumn 2 Maths Activity Mat 3 **Answers**

Section 1

Round the following numbers to the nearest two million:

23 691 001 → **24 000 000**

13 000 020 → 14 000 000

32 950 000 → 32 000 000

Section 2

Draw a Carroll diagram to find the common factors of 16 and 45.

	Factors of 16	Not Fac-tors of 16
Fac-tors of 45	1	3, 5, 9, 15, 45
Not fac-tors of 45	2, 4, 8, 16	<i>6, 7, 8, 10 - 14, 17-44, 46 and higher</i>

Section 3

What number, when doubled, is 70% of the product of 12 and 7?

29.4

Section 4

Calculate:

$$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{16}$$

$$\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4} \times \frac{4}{5} \times \frac{5}{6} = \frac{120}{720} \text{ or } \frac{1}{6}$$

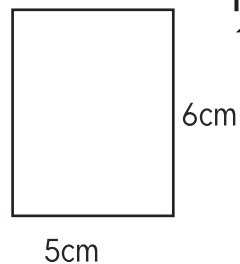
Section 5

Calculate, writing the answer as a decimal rounded to 2 decimal places:

[illegible]

Section 6

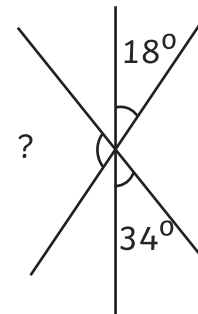
Draw (not to scale) a rectangle with the same area as this rectangle, but with a different perimeter. Label the length of the sides.



**Various answers
including 10 x 3 cm,
15 x 2 cm, 30 x 1 cm**

Section 7

Calculate the unknown angle.



(Not to scale.)

128⁰

Section 8

Find 3 pairs of numbers that satisfy these equations:

$$a - 3b = 7$$

$$5c + 2d = 21$$

A range of answers. Here are some examples:

a = 10, b = 1; a = 13, b = 2;

a = 16, b = 3, c = 1, d = 8;

c = 3, d = 3; c = 5, d = -2