

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:

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

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

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

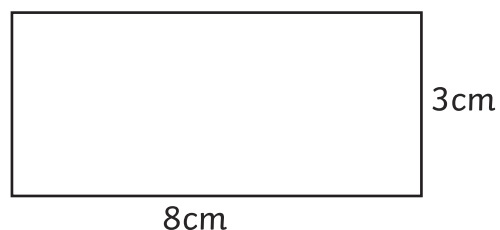
Section 5

Calculate, writing the answer to one decimal place:

| | | | | | | | | | |
|---|---|---|---|--|--|--|--|--|--|
| | | | | | | | | | |
| 5 | 1 | 7 | 4 | | | | | | |
| | | | | | | | | | |

Section 6

Calculate the area and perimeter of the following rectangle.



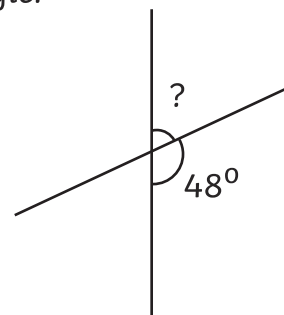
(Not to scale.)

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 → **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 | 7, 8, 9, 10, 11, 13 and higher |

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.



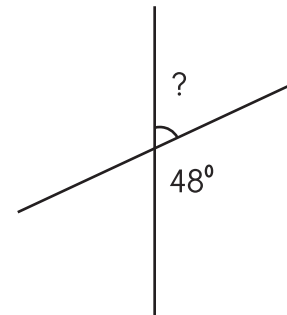
(Not to scale.)

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 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

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

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

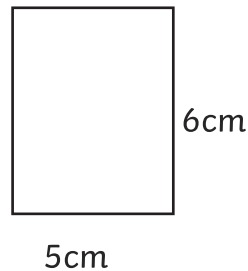
Section 5

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

| | | | | | | | | | |
|---|---|---|---|---|--|--|--|--|--|
| | | | | | | | | | |
| 1 | 2 | 8 | 5 | 6 | | | | | |
| | | | | | | | | | |

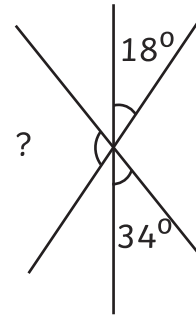
Section 6

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 | 6, 7, 8, 10 - 14, 17-44, 46 and higher |

Section 3

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

29.4

Section 4

Calculate:

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

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

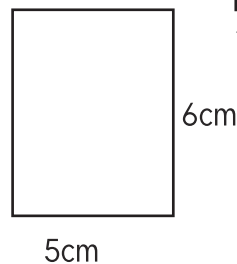
Section 5

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

| | | | | | | | | |
|---|---|---|---|---|---|---|---|--|
| | | | | | | | | |
| | | | 7 | 1 | . | 3 | 3 | |
| 1 | 2 | 8 | 5 | 6 | | | | |
| | | | | | | | | |
| | | | | | | | | |

Section 6

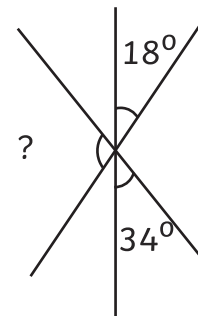
Draw (not to scale) a rectangle with the same area as this rectangle, but with a different perimeter. Label the length of the sides.



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

Section 7

Calculate the unknown angle.



(Not to scale.)

128°

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:

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

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

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