

# Year 6 Spring 2 Maths Activity Mat

1

Order the following numbers from smallest to largest:

776 776, 767 767, 767 677, 776 677

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1

A teacher organises 354 children into groups of eight children. How many groups of eight children will there be?

\_\_\_\_\_

3

I have two flat faces that are circles, which are parallel to each other. The other face is a curved face that joins the circles. What am I?

\_\_\_\_\_

7

Here are some estimated answers to some calculations. Tick the reasonable estimates.

- ☐  $785 \times 8 \approx 7000$
- ☐  $65\,712 - 34\,989 \approx 20\,000$
- ☐  $653 \div 13 \approx 50$

Explain why any estimates are unreasonable. \_\_\_\_\_

\_\_\_\_\_

2

Simplify the following fractions.

$$\frac{6}{15}$$

$$\frac{24}{32}$$

4

Calculate:

$$0.1 \times 100 =$$

$$0.8 \times 100 =$$

$$0.4 \times 100 =$$

5

Convert the following:

$$0.3\text{ l} = \text{_____ ml}$$

$$\text{_____ l} = 5800\text{ ml}$$

6

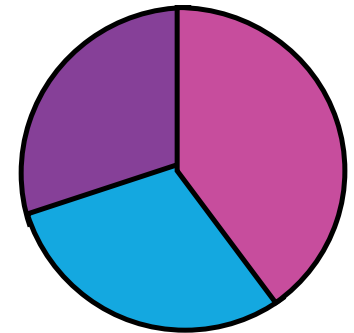
Some children research children's favourite sports. They show the results in a pie chart.

- ☐ football
- ☐ swimming
- ☐ cricket

24 children chose football. Estimate how many children chose cricket?

\_\_\_\_\_

8



# Year 6 Spring 2 Maths Activity Mat

2

What is the digit in the hundred thousands place in the number 7 802 314?

1

\_\_\_\_\_

A farmer has 24 092 animals. There are 13 562 sheep and 2893 sheep. The rest are pigs. How many pigs does the farmer have?

2

\_\_\_\_\_

\_\_\_\_\_

Calculate:

3

$$14 \overline{) 7238}$$

Use <, =, or > to compare these fractions.

4

$$\frac{13}{4}$$

$$\frac{7}{2}$$

$$\frac{19}{8}$$

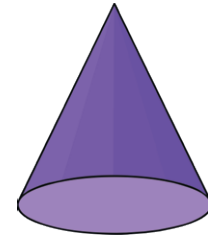
$$\frac{5}{2}$$

$$\frac{23}{6}$$

$$\frac{11}{3}$$

Name this shape.

7



\_\_\_\_\_

Calculate:

5

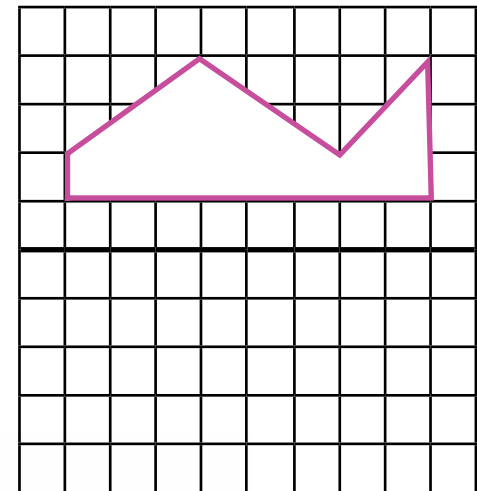
$$0.04 \times 6 =$$

$$0.03 \times 9 =$$

$$0.07 \times 8 =$$

Reflect this shape about the thick black vertical line.

8



1 mile  $\approx$  1600m

6

How many miles is a 10 000m race?

\_\_\_\_\_

# Year 6 Spring 2 Maths Activity Mat

3

1  
Round the following numbers to the nearest ten million.

23 891 500 →

85 000 000 →

44 500 000 →

2  
Use this Carroll diagram to write the common factors of 8 and 18.

	Factor of 8	Not a factor of 8
Factor of 18		
Not a factor of 18		

3  
What number, when halved, is three times 16?

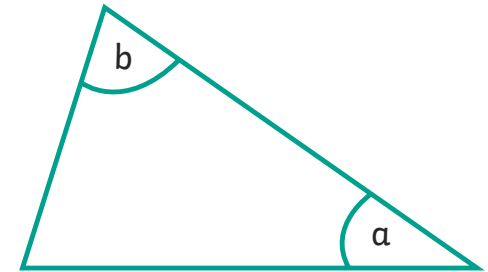
4  
Calculate:

$$\frac{1}{3} \times \frac{1}{12} = \frac{1}{12}$$

$$\frac{1}{1} \times \frac{2}{3} = \frac{2}{30}$$

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

7  
Estimate angles a and b.



5  
Calculate, writing the answer as a decimal:

$$8 \overline{) 510}$$

6  
Write possible measurements for the sides of this rectangle.

Area = 24cm<sup>2</sup>

Perimeter = 22cm



8  
Find three pairs of numbers that satisfy these equations:

$$2a - b = 5$$

$$c + 4d = 15$$

# Year 6 Spring 2 Maths Activity Mat

4

1

The temperature in a fridge should be between  $1^{\circ}\text{C}$  and  $4^{\circ}\text{C}$ , and in a freezer between  $-18^{\circ}\text{C}$  and  $-20^{\circ}\text{C}$ . What should be the maximum and minimum differences in temperatures between a fridge and freezer? \_\_\_\_\_

2

Calculate in your head:

$$263 + 306 =$$

$$253 + 147 =$$

$$703 - 401 =$$

$$612 - 593 =$$

3

Calculate:

$$7 \times (3 + 6) =$$

$$98 - 12 \times 8 =$$

$$(45 + 19) \div 8 =$$

4

Circle the odd one out.

$$\frac{3}{4} \quad 0.75 \quad \frac{7}{8} \quad \frac{9}{12} \quad \frac{12}{16}$$

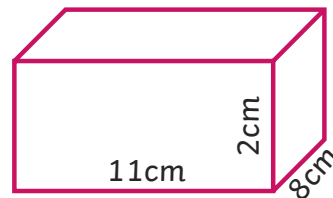
5

The moon is an average of 238 855 miles from the Earth. Round the distance to an appropriate figure.

The average distance from the earth to the moon is \_\_\_\_\_, rounded to the nearest \_\_\_\_\_.

6

Calculate the volume of this cuboid.



Volume = \_\_\_\_\_

7

Describe the radius and the diameter of a circle.

8

Find the mean of these numbers:

46, 38, 29, 40, 61

\_\_\_\_\_

# Year 6 Spring 2 Maths Activity Mat

5

Use these clues to find the number:

1

- The number has six digits.
- The number is less than 300 000.
- Nine is a factor of the number.
- Three digits are even and three are odd.
- The second digit is the first digit cubed.
- The tens digit has no value.
- The thousands digit is seven times the hundreds digit.

Calculate:

2

$$\begin{array}{r} 6719 \\ \times 34 \\ \hline \end{array}$$

Write 1.625 as an improper fraction?

3

A shop sells four sizes of Easter eggs. Altogether it sells 5982 eggs, of which 1697 are small and 1049 are medium size. The remaining eggs are large and extra large. 25% of the remaining eggs sold are extra large. How many extra large eggs are sold?

4

Complete:

5

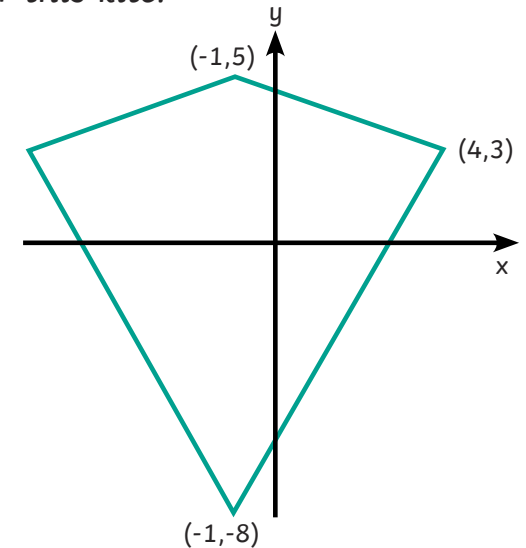
$$\frac{3}{4} \div 4 = \quad \quad \quad \frac{2}{5} \div 4 =$$

Alice makes a drink for a party of 16 children. She uses four litres of lemonade and three litres of juice. How much drink would each child have if the drink was shared equally?

6

Write the missing coordinates for this kite.

7



a and b are whole numbers between 5 and 9. Write all the combinations showing the possible values of a and b where:

8

$$2a - b = 8$$

# Year 6 Spring 2 Maths Activity Mat

6

**1**  
Bags of mini chocolate eggs contain six milk chocolate eggs, five plain chocolate eggs and three white chocolate eggs. Jake would like 15 plain chocolate eggs. How many milk and white chocolate eggs will he have?  
\_\_\_\_\_

**2**  
 $y = 3x + 7$

If  $x = 4$ , what is  $y$ ? \_\_\_\_\_

If  $y = 31$ , what is  $x$ ? \_\_\_\_\_

**3**  
Calculate:

15% of £46 =

80% of £125 =

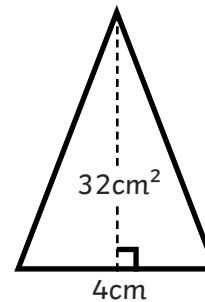
**4**  
Calculate:

$$\frac{1}{4} + \frac{5}{8} =$$

$$\frac{9}{10} - \frac{3}{5} =$$

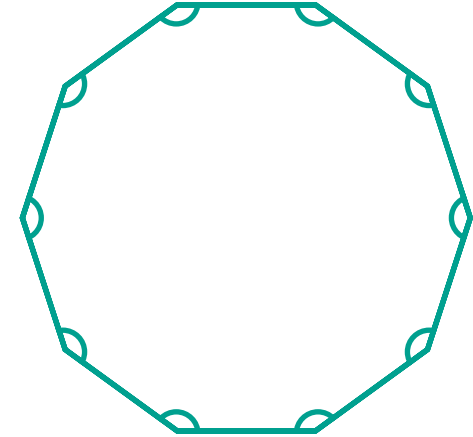
**5**  
For Comic Relief, a school have two activities. Children paid £1.50 to not wear uniform. There was also a bake sale that raised £56.25 out of the total £423.75. How many children did not wear school uniform?  
\_\_\_\_\_

**6**  
This triangle has an area of  $32\text{cm}^2$ . Calculate the height of the triangle.



Height: \_\_\_\_\_

**7**  
Calculate the angles in this regular decagon:



**8**  
Express the answer to this word problem algebraically, using  $h$  to represent the number hours Miles is asleep in a day, when he spends seven hours at school and is awake for another nine hours.  
\_\_\_\_\_  
\_\_\_\_\_

# Year 6 Spring 2 Maths Activity Mat

1

Order the following numbers from smallest to largest:

776 776, 767 767, 767 677, 776 677

767 677	767 767	776 677	776 776
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1

A teacher organises 354 children into groups of eight children. How many groups of eight children will there be?

**44 groups (two children left over)**

3

I have two flat faces that are circles, which are parallel to each other. The other face is a curved face that joins the circles. What am I?

**A cylinder**

7

Here are some estimated answers to some calculations. Tick the reasonable estimates.

☐  $785 \times 8 \approx 7000$

☐  $65\,712 - 34\,989 \approx 20\,000$

☒  $653 \div 13 \approx 50$

Explain why any estimates are unreasonable.

**$800 \times 8 = 6400$  and answer must be smaller**

**$65 - 34 = 31$ , so 30 000 a better estimate.**

2

Simplify the following fractions.

$$\frac{6}{15} = \frac{2}{5}$$

$$\frac{24}{32} = \frac{3}{4}$$

4

Calculate:

$$0.1 \times 100 = \mathbf{10}$$

$$0.8 \times 100 = \mathbf{80}$$

$$0.4 \times 100 = \mathbf{40}$$

5

Convert the following:

$$0.3\text{l} = \mathbf{300\text{ml}}$$

$$\mathbf{5.8\text{l}} = 5800\text{ ml}$$

6

Some children research children's favourite sports. They show the results in a pie chart.

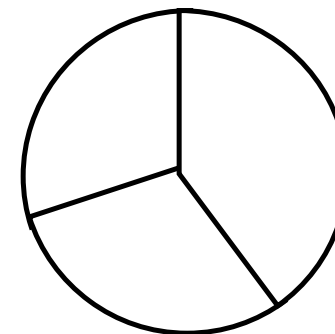
☐ football

☐ swimming

☐ cricket

24 children chose football. Estimate how many children chose cricket?

**18 (allow 16-20)**



8

# Year 6 Spring 2 Maths Activity Mat

2

What is the digit in the hundred thousands place in the number 7 802 314?

**8**

1

A farmer has 24 092 animals. There are 13 562 sheep and 2893 sheep. The rest are pigs. How many pigs does the farmer have?

**7637 pigs**

2

Calculate:

**517**

14  $\overline{)7238}$

3

Use <, =, or > to compare these fractions.

$$\frac{13}{4} < \frac{7}{2}$$

$$\frac{19}{8} < \frac{5}{2}$$

$$\frac{23}{6} > \frac{11}{3}$$

4

Calculate:

$$0.04 \times 6 = \mathbf{0.24}$$

$$0.03 \times 9 = \mathbf{0.27}$$

$$0.07 \times 8 = \mathbf{0.56}$$

5

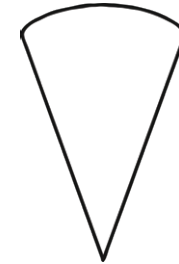
1 mile  $\approx$  1600m

How many miles is a 10 000m race?

**6.25 miles**

6

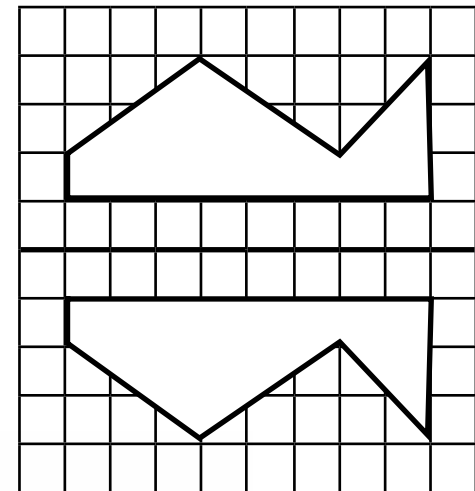
Name this shape.



**cone**

7

Reflect this shape about the thick black vertical line.



8



# Year 6 Spring 2 Maths Activity Mat

3

Round the following numbers to the nearest ten million.

23 891 500 → **20 000 000**

85 000 000 → **90 000 000**

44 500 000 → **40 000 000**

Use this Carroll diagram to write the common factors of 8 and 18.

	Factor of 8	Not a factor of 8
Factor of 18	<b>1, 2</b>	<b>3, 6, 9, 18</b>
Not a factor of 18	<b>4, 8</b>	5, 7, 9, 10, 11, 13, 14, 15, 17 – 23, 25 and higher

What number, when halved, is three times 16?

**96**

Calculate:

$$\frac{1}{3} \times \frac{1}{4} = \frac{1}{12}$$

$$\frac{1}{10} \times \frac{2}{3} = \frac{1}{15}$$

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

Calculate, writing the answer as a decimal:

$$\begin{array}{r} 63.75 \\ 8 \overline{) 510} \end{array}$$

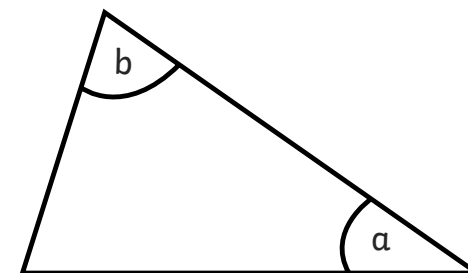
Write possible measurements for the sides of this rectangle.

Area = 24cm<sup>2</sup>

Perimeter = 22cm

**8cm × 3cm**

Estimate angles a and b.



**a = 35° and b = 75°**

Find three pairs of numbers that satisfy these equations:

$$2a - b = 5$$

$$a = 5, b = 5;$$

$$a = 6, b = 7;$$

$$a = 7, b = 9$$

$$c + 4d = 15$$

$$c = 3, d = 3;$$

$$c = 7, d = 2;$$

$$c = 11, d = 1$$

# Year 6 Spring 2 Maths Activity Mat

4

**1**  
The temperature in a fridge should be between  $1^{\circ}\text{C}$  and  $4^{\circ}\text{C}$ , and in a freezer between  $-18^{\circ}\text{C}$  and  $-20^{\circ}\text{C}$ . What should be the maximum and minimum differences in temperatures between a fridge and freezer? **Maximum  $24^{\circ}\text{C}$ , Minimum  $19^{\circ}\text{C}$**

**2**  
Calculate in your head:

$$263 + 306 = \mathbf{569}$$

$$253 + 147 = \mathbf{400}$$

$$703 - 401 = \mathbf{302}$$

$$612 - 593 = \mathbf{19}$$

**3**  
Calculate:

$$7 \times (3 + 6) = \mathbf{63}$$

$$98 - 12 \times 8 = \mathbf{2}$$

$$(45 + 19) \div 8 = \mathbf{8}$$

**4**  
Circle the odd one out.

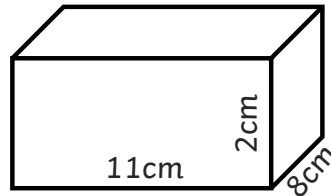
$$\frac{3}{4} \quad 0.75 \quad \left(\frac{7}{8}\right) \quad \frac{9}{12} \quad \frac{12}{16}$$

**5**  
The moon is an average of 238 855 miles from the Earth. Round the distance to an appropriate figure.

**Various answers possible.**

**e.g. 239 000 (1000), 238 900 (100)**

**6**  
Calculate the volume of this cuboid.



$$\mathbf{11\text{cm} \times 8\text{cm} \times 2\text{cm} = 176\text{cm}^3}$$

**7**  
Describe the radius and the diameter of a circle.

**The radius is a line from the centre of the circle to the circumference, and the diameter is a line from the circumference to the circumference through the centre.**  
**(Answer can be drawn)**

**8**  
Find the mean of these numbers:

46, 38, 29, 40, 61

**42.8**

# Year 6 Spring 2 Maths Activity Mat

5

Use these clues to find the number:

- The number has six digits.
- The number is less than 300 000.
- Nine is a factor of the number.
- Three digits are even and three are odd.
- The second digit is the first digit cubed.
- The tens digit has no value.
- The thousands digit is seven times the hundreds digit.

**287 109**

Calculate:

$$\begin{array}{r}
 \begin{array}{r}
 2 \quad 3 \\
 6 \ 7 \ 1 \ 9 \\
 \times \quad 3 \ 4 \\
 \hline
 2 \ 6 \ 8 \ 7 \ 6 \\
 2 \ 0 \ 1 \ 5 \ 7 \ 0 \\
 \hline
 2 \ 3 \ 8 \ 4 \ 4 \ 6 \\
 \hline
 1 \quad 1
 \end{array}
 \end{array}$$

Write 1.625 as an improper fraction?

$$\frac{13}{8}$$

A shop sells four sizes of Easter eggs. Altogether it sells 5982 eggs, of which 1697 are small and 1049 are medium size. The remaining eggs are large and extra large. 25% of the remaining eggs sold are extra large. How many extra large eggs are sold?

**809**

Complete:

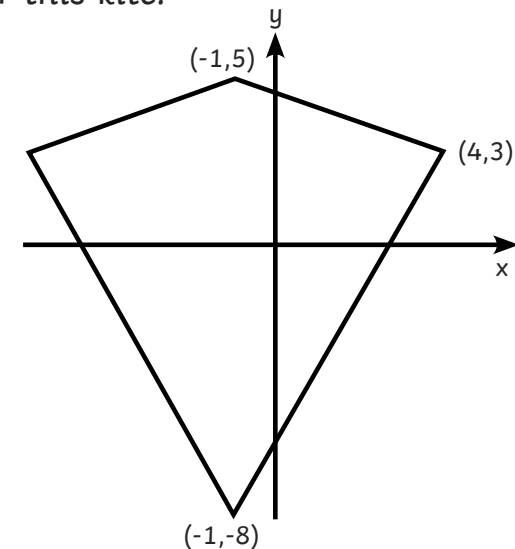
$$\frac{3}{4} \div 4 = \frac{3}{16}$$

$$\frac{2}{5} \div 4 = \frac{3}{20}$$

Alice makes a drink for a party of 16 children. She uses four litres of lemonade and three litres of juice. How much drink would each child have if the drink was shared equally?

**437.5ml or 0.4375l**

Write the missing coordinates for this kite.



**(-6,3)**

a and b are whole numbers between 5 and 9. Write all the combinations showing the possible values of a and b where:

$$2a - b = 8$$

**a = 8, b = 8; a = 7, b = 6;**

# Year 6 Spring 2 Maths Activity Mat

6

**1**  
Bags of mini chocolate eggs contain six milk chocolate eggs, five plain chocolate eggs and three white chocolate eggs. Jake would like 15 plain chocolate eggs. How many milk and white chocolate eggs will he have?

**18 milk and 9 white chocolate eggs**

**2**  
 $y = 3x + 7$

If  $x = 4$ , what is  $y$ ? **19**

If  $y = 31$ , what is  $x$ ? **8**

**3**  
Calculate:

15% of £46 = **£6.90**

80% of £125 = **£100**

**4**  
Calculate:

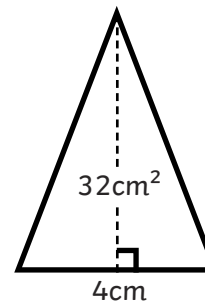
$$\frac{1}{4} + \frac{5}{8} = \frac{7}{8}$$

$$\frac{9}{10} - \frac{3}{5} = \frac{3}{10}$$

**5**  
For Comic Relief, a school have two activities. Children paid £1.50 to not wear uniform. There was also a bake sale that raised £56.25 out of the total £423.75. How many children did not wear school uniform?

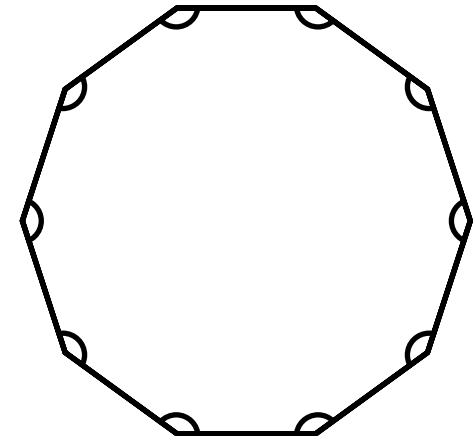
**245 children**

**6**  
This triangle has an area of  $32\text{cm}^2$ . Calculate the height of the triangle.



Height: **16cm**

**7**  
Calculate the angles in this regular decagon:



**144°**

**8**  
Express the answer to this word problem algebraically, using  $h$  to represent the number hours Miles is asleep in a day, when he spends seven hours at school and is awake for another nine hours.

**24 = h + 9 + 7 or h = 24 - (9 + 7)**  
**or h = 24 - 7 - 9**

**other answers possible**