

Maths - Activity 1

LO: To estimate, compare and calculate different measures.

Core skill - Complete these calculations by closely examining their place value using the symbols $>$, $<$ and $=$.

Remember: • $1\text{m} = 100\text{cm}$ • $1\text{cm} = 10\text{mm}$ • $1\text{km} = 1000\text{m}$
• $1\text{l} = 1000\text{ml}$ • $1\text{l} = 1000\text{g}$ • $£1 = 100\text{p}$

1. $1.2\text{kg} \square 120\text{g}$

2. $800\text{ml} \square 8\text{l}$

3. $£1.83 \square 138\text{p}$

4. $1\text{m} \square 100\text{mm}$

5. $13.5\text{cm} \square 1.35\text{m}$

6. $£0.75 \square 750\text{p}$

7. $2.45\text{kg} \square 2450\text{g}$

8. $1.05\text{kg} \square 105\text{g}$

Depth task - Solve the word problems below using your knowledge of measures.

1. Abrash had £9.75 in her money box. Her nan came to visit and gave her £5.50. How much money does she have now?

2. Inaya is wrapping presents. The roll she uses is 5m long. She cuts off 1.9m to wrap her brother's birthday present. How much wrapping paper is left over?

3. Farhad pours a glass of squash. If the glass holds 500ml and $\frac{1}{5}$ is the concentrated squash, how many millilitres of water did he pour?

Greater Depth

Sunil says he has £13 approximately in his wallet after rounding. If he rounded the amount of money he had to the nearest pound, what is the smallest and largest amount of money that he could have in his wallet?



Maths - Activity 2

LO: To convert between different units of measure.

Core skill - Convert each amount into the given unit of measure carefully.

Remember: • $1\text{m} = 100\text{cm}$ • $1\text{cm} = 10\text{mm}$ • $1\text{km} = 1000\text{m}$
• $1\text{l} = 1000\text{ml}$ • $1\text{kg} = 1000\text{g}$ • $£1 = 100\text{p}$

1. $1.5\text{m} = \underline{\hspace{2cm}}\text{cm}$

2. $1.5\text{m} = \underline{\hspace{2cm}}\text{mm}$

3. $57.4\text{cm} = \underline{\hspace{2cm}}\text{mm}$

4. $\underline{\hspace{2cm}}\text{l} = 2300\text{ml}$

5. $3.75\text{l} = \underline{\hspace{2cm}}\text{ml}$

6. $300\text{mins} = \underline{\hspace{2cm}}\text{hrs}$

7. $\underline{\hspace{2cm}}\text{secs} = 6\text{mins } 40\text{secs}$

8. $1765\text{p} = £\underline{\hspace{2cm}}$

Depth task - Use your conversion skills to complete these calculations.

1. $1.7\text{m} + 20\text{cm} = \underline{\hspace{2cm}}\text{m}$

2. $65\text{cm} - 30\text{mm} = \underline{\hspace{2cm}}\text{mm}$

3. $4.6\text{km} - 850\text{m} = \underline{\hspace{2cm}}\text{m}$

4. $2400\text{m} + 1.1\text{km} = \underline{\hspace{2cm}}\text{km}$

5. $3\text{hrs} - 25\text{mins} = \underline{\hspace{2cm}}\text{mins}$

6. $2\text{hrs} + \frac{3}{4}\text{hr} = \underline{\hspace{2cm}}\text{mins}$

Greater Depth

How many different answers can you find to this calculation using these number cards?

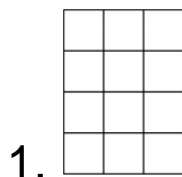
0	1	3	5
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$$2.9\text{km} < \square 9 \square 0\text{m}$$

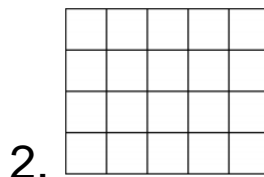
Maths - Activity 3

LO: To find the area by counting squares.

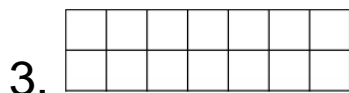
Core skill - Find the areas of these shapes by counting the individual squares. Write each question number, then the answer as ____cm².



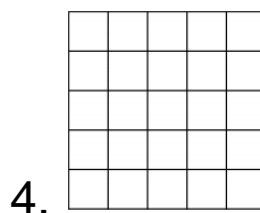
____cm².



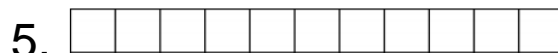
____cm².



____cm².

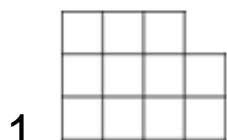


____cm².

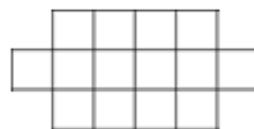


____cm².

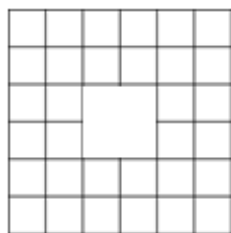
Depth task - Find the areas of these shapes by counting the individual squares.



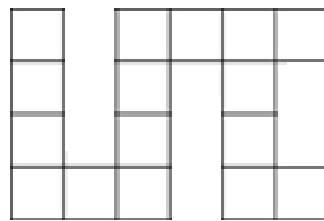
____cm².



____cm².

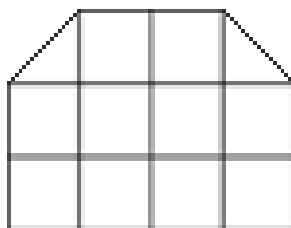


____cm².



____cm².

Greater Depth - What would the area of this shape be? Explain why.

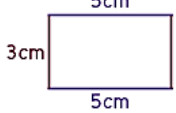


Maths - Activity 4

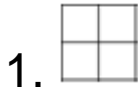
LO: To measure and calculate the perimeter in centimetres and metres.

Core skill - Find the perimeter of these shapes by counting the cm squares for each side of the shape. Write each question number, then the answer as ____cm.

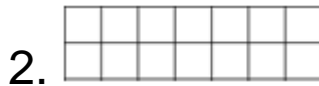
Find the Perimeter



length = 5cm
width = 3cm
 $P = 5\text{cm} + 3\text{cm} + 5\text{cm} + 3\text{cm} = 16\text{cm}$

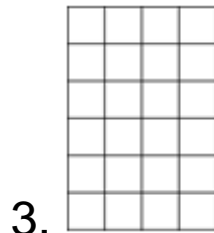


____cm.

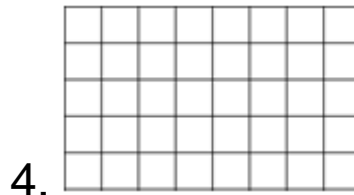


____cm.

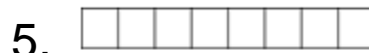
scale: 1 individual square = 1cm



____cm.

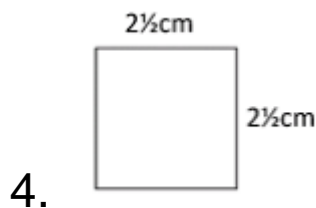
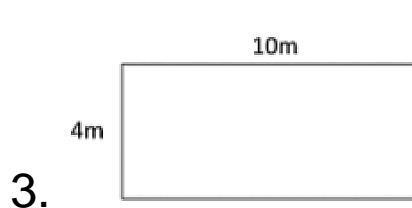
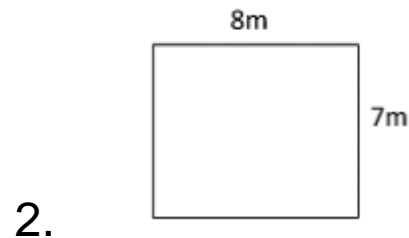
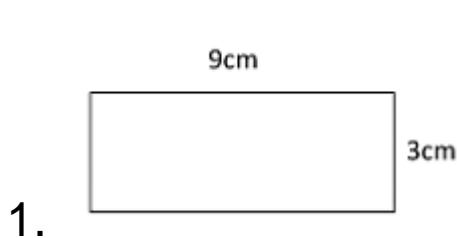


____cm.



____cm.

Depth task - Find the perimeter of these shapes. Don't forget to write the unit of measurement for each shape too!



Greater Depth

Ayat says that the perimeter of a square is always a smaller amount than the area. Do you agree with her? Remember squares have 4 equal sides!

Work out the area and perimeter of some squares, then write an explanation about what you found out. Perhaps you could start with a square with 1cm sides and then 2cm. Try to work systematically.

Answers

Activity 1

Core skill

1. $1.2\text{kg} > 120\text{g}$

2. $800\text{ml} < 8\text{l}$

3. $\text{£}1.83 > 138\text{p}$

4. $1\text{m} > 100\text{mm}$

5. $13.5\text{cm} < 1.35\text{m}$

6. $\text{£}0.75 < 750\text{p}$

7. $2.45\text{kg} = 2450\text{g}$

8. $1.05\text{kg} > 105\text{g}$

Depth task

1. Abrash had $\text{£}9.75$ in her money box. Her nan came to visit and gave her $\text{£}5.50$. How much money does she have now?

$$\text{£}9.75 + \text{£}5.50 = \text{£}15.25$$

2. Inaya is wrapping presents. The roll she uses is 5m long. She cuts off 1.9m to wrap her brother's birthday present. How much wrapping paper is left over?

$$5\text{m} - 1.9\text{m} = 3.1\text{m}$$

3. Farhad pours a glass of squash. If the glass holds 500ml and $1/5$ is the concentrated squash, how many millilitres of water did he pour?

$$1/5 \text{ of } 500\text{ml} = 100\text{ml}$$

$$500\text{ml} - 100\text{ml} = 400\text{ml}$$

Greater Depth

Sunil says he has $\text{£}13$ approximately in his wallet after rounding. If he rounded the amount of money he had to the nearest pound, what is the smallest and largest amount of money that he could have in his wallet?



$\text{£}12.50$ rounds up to $\text{£}13$. $\text{£}13.49$ rounds down to $\text{£}13$.

Answers

Activity 2

Core skill -

1. $1.5\text{m} = 150\text{cm}$
2. $1.5\text{m} = 1500\text{mm}$
3. $57.4\text{cm} = 574\text{mm}$
4. $2.3\text{l} = 2300\text{ml}$
5. $3.75\text{l} = 3750\text{ml}$
6. $300\text{mins} = 5\text{hrs}$
7. $400\text{secs} = 6\text{mins } 40\text{secs}$
8. $1765\text{p} = \text{£}17.65$

Depth task - Use your conversion skills to complete these calculations.

1. $1.7\text{m} + 20\text{cm} = 1.9\text{m}$
 $20\text{cm} = 0.2\text{m}$
 $1.7\text{m} + 0.2\text{m} = 1.9\text{m}$
2. $65\text{cm} - 30\text{mm} = 620\text{mm}$
 $65\text{cm} = 650\text{mm}$
 $650\text{mm} - 30\text{mm} = 620\text{mm}$
3. $4.6\text{km} - 850\text{m} = 3750\text{m}$
 $4.6\text{km} = 4600\text{m}$
 $4600\text{m} - 850\text{m} = 3750\text{m}$
4. $2400\text{m} + 1.1\text{km} = 3.5\text{km}$
 $2400\text{m} = 2.4\text{km}$
 $2.4\text{km} + 1.1\text{km} = 3.5\text{km}$
5. $3\text{hrs} - 25\text{mins} = 155\text{mins}$
 $3\text{hrs} = 180\text{mins}$
 $180\text{mins} - 25\text{mins} = 155\text{mins}$
6. $2\text{hrs} + 3/4\text{hr} = 165\text{mins}$
 $2\text{hrs} = 120\text{mins}$
 $3/4\text{hr} = 45\text{mins}$
 $120\text{mins} + 45\text{mins} = 165\text{mins}$

Greater Depth

How many different answers can you find to this calculation using these number cards?

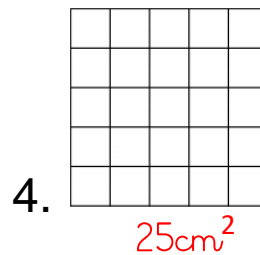
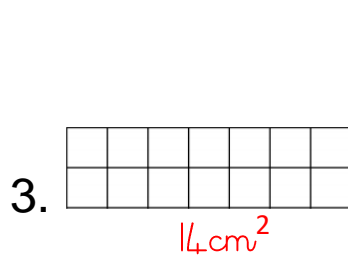
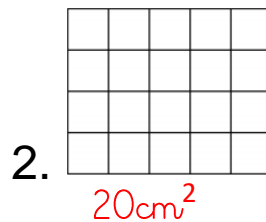
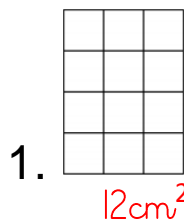
0 1 3 5

$$2.9\text{km} < \square.9\square0\text{m}$$

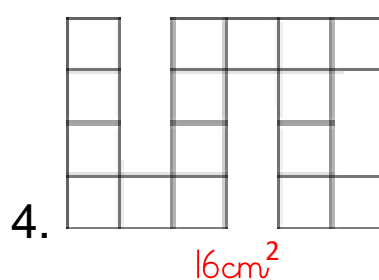
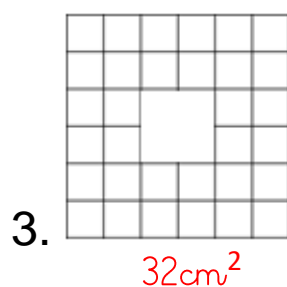
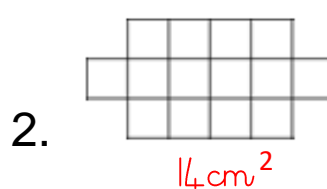
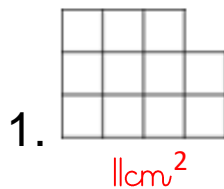
- $2.9\text{km} < 3900\text{m}$
- $2.9\text{km} < 3950\text{m}$
- $2.9\text{km} < 5910\text{m}$
- $2.9\text{km} < 3910\text{m}$
- $2.9\text{km} < 5900\text{m}$
- $2.9\text{km} < 5930\text{m}$

Activity 3

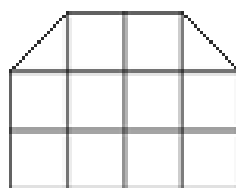
Core skill - Find the areas of these shapes. Write each question number, then the answer as ____cm²



Depth task - Find the areas of these shapes.



Greater Depth

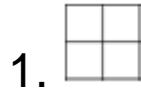


There are 10 whole squares and 2 triangles. The 2 triangles would equal 1 square. The area of this shape is 11cm².

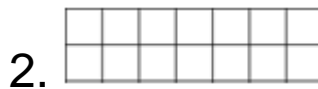
Answers

Activity 4

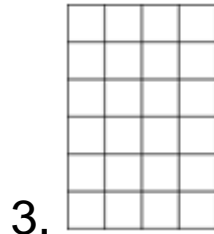
Core skill



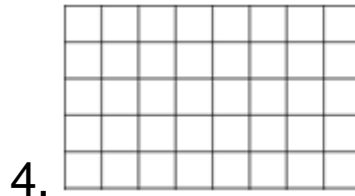
$P = 8\text{cm}$



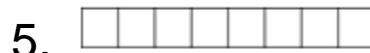
$P = 18\text{cm}$



$P = 20\text{cm}$

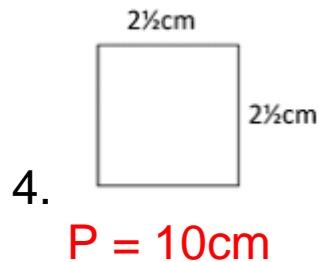
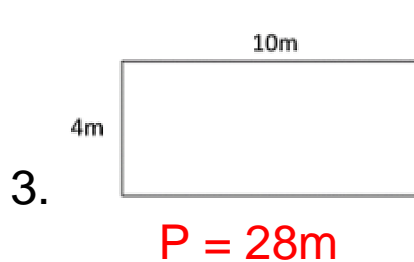
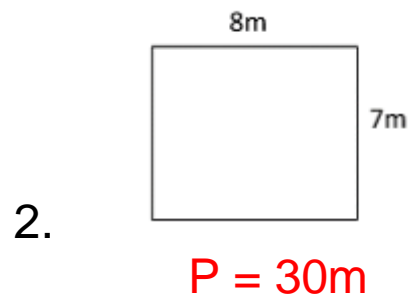
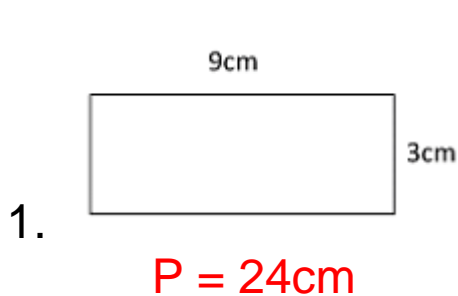


$P = 26\text{cm}$



$P = 18\text{cm}$

Depth task



Greater Depth

Ayat says that the perimeter of a square is always a smaller amount than the area. Do you agree with her?

This is sometimes true, and sometimes false...

A square with sides of 1cm, the perimeter is 4cm, and the area is 1cm²

A square with sides of 2cm, the perimeter is 8cm, and the area is 4cm²

A square with sides of 5cm, the perimeter is 20cm, and the area is 25cm²

A square with sides of 8cm, the perimeter is 32cm, and the area is 64cm²