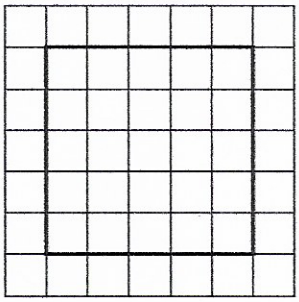
mm

Finding the Area of Rectangles and Squares

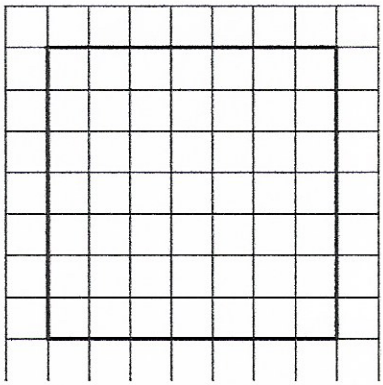
1.



Area: $5 \times 5 = 25$ units^2

Perimeter: $5+5+5+5 = 20$ units

2.



Area: $7 \times 7 = 49$ units^2

Perimeter: $7+7+7+7 = 28$ units

3.

8cm

4cm | A = $4 \times 8 = 32$cm^2 | 4cm

8cm

P: $8+8+4+4 = 24$cm

4.

4cm

6cm | A = $6 \times 4 =$ 24cm^2 | 4cm

6cm

P: $6+6+4+4 = 20$cm

5.

10cm

8cm | A = 10×8 = 80cm^2 | 8cm

10cm

P: $10+10+8+8 = 36$cm

6.

9cm

3cm | A = $3 \times 9 = 27$cm^2 | 3cm

9cm

P: $9+9+3+3 = 24$cm

7.

5cm

11cm | A = 5×11 = 55cm^2 | 11cm

5cm

P: $11+11+5+5 = 32$cm

Challenge

9cm

6cm | A = $6 \times 9 = 54$cm^2

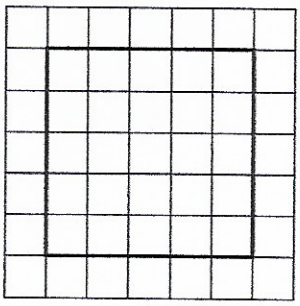
P: $9+9+6+6$

= 30cm

Cm/Inches

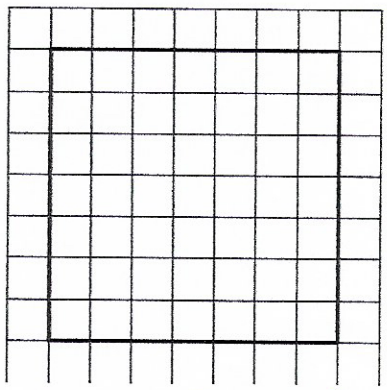
Finding the Area of Rectangles and Squares

1.



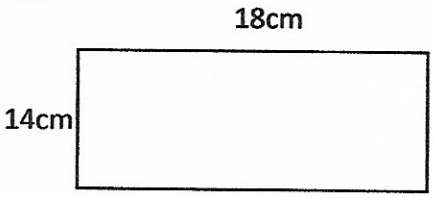
A = 5 x 5 = 25 units²
P = 5 + 5 + 5 + 5 = 20 units

2.



A = 7 x 7 = 49 units²
P = 7 + 7 + 7 + 7 = 28 units

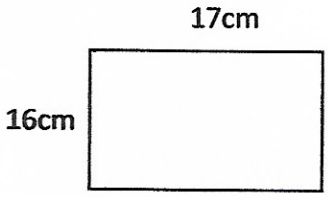
3.



Area
18
x 14
72
180
252cm²

P: 18 + 18 + 14 + 14
= 64cm

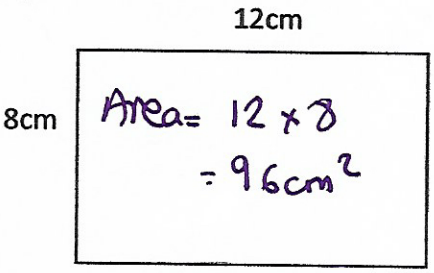
4.



Area
17
x 16
102
170
272cm²

P: 17 + 17 + 16 + 16
= 66cm

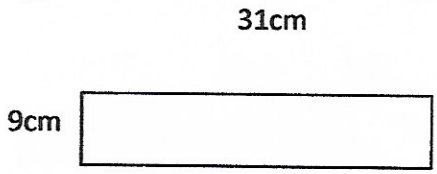
5.



Area = 12 x 8
= 96cm²

P: 12 + 12 + 8 + 8
= 40cm

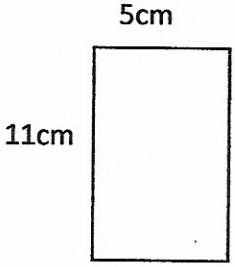
6.



Area
31
x 9
279cm²

P: 31 + 31 + 9 + 9
= 80cm

7.



Area
= 11 x 5
= 55cm²

P: 11 + 11 + 5 + 5 = 32cm

Challenge

The area of a square is 25cm²

What is its perimeter?

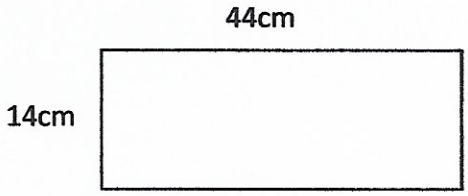
25 = 5 x 5
each side = 5cm

Perimeter = 5 + 5 + 5 + 5
= 20 cm

Metres/Km

Finding the Area of 2D shapes

1.

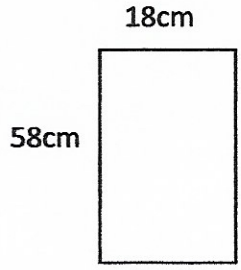


Area

$$\begin{array}{r} 44 \\ \times\ 14 \\ \hline 176 \\ 440 \\ \hline 616\text{cm}^2 \end{array}$$

P: 44 + 44 + 14 + 14
= 112cm

2.

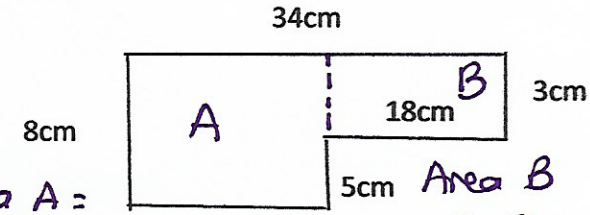


P:
18
18
58
58
152cm

Area

$$\begin{array}{r} 58 \\ \times\ 18 \\ \hline 464 \\ 580 \\ \hline 1044\text{cm}^2 \end{array}$$

3.

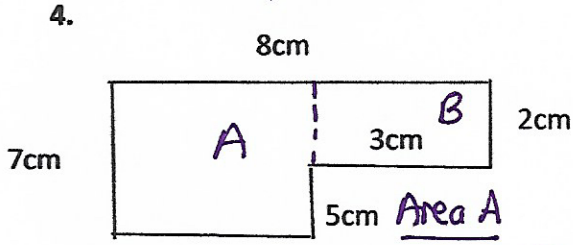


Area A =
16 × 8 =
128cm²

Area B
= 18 × 3
54cm²

Total Area : 128 + 54 = 182cm²

4.

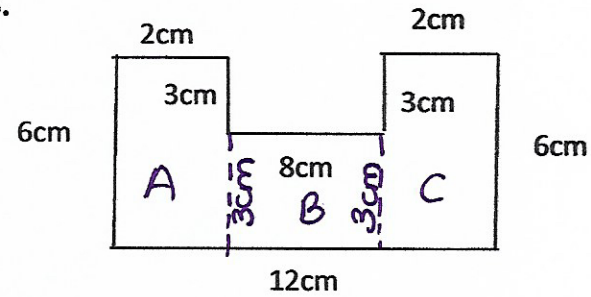


Area A
7 × 5 = 35m²

Area B
3 × 2 = 6m²

Total : 41m²

5.



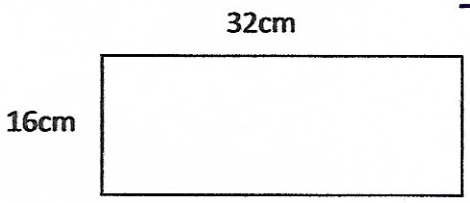
Area A: 6 × 2 = 12cm²

Area B: 8 × 3 = 24cm²

Area C: 6 × 2 = 12cm²

Total Area = 48cm²

6.



Area:

$$\begin{array}{r} 32 \\ \times\ 16 \\ \hline 192 \\ 320 \\ \hline 512\text{cm}^2 \end{array}$$

Challenge

A rectangle has an area of 32cm²

What are its possible dimensions?

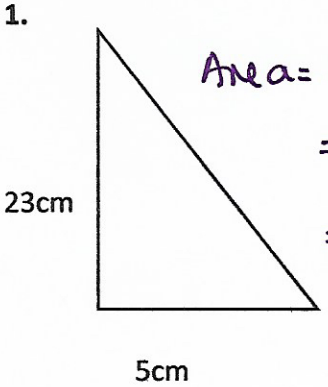
consider pairs of factors to make 32

eg 1 × 32
2 × 16
4 × 8

Miles/Feet

Finding the Area of 2D and Compound Shapes

1.

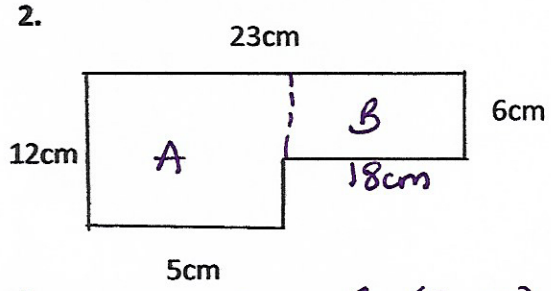


Area = $(23 \times 5) \div 2$

$= 115 \div 2$

$= 57.5\text{cm}^2$

2.

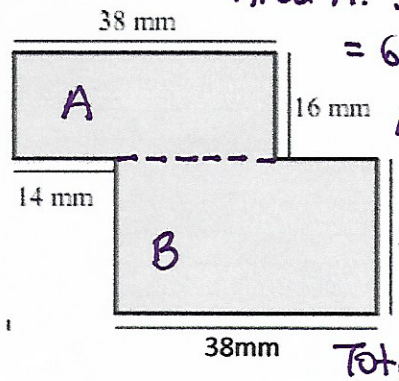


Area A: 60cm^2 (5×12)

Area B: 108cm^2 (18×6)

Total Area 168cm^2

3.



Area A: 38×16

$= 608\text{mm}^2$

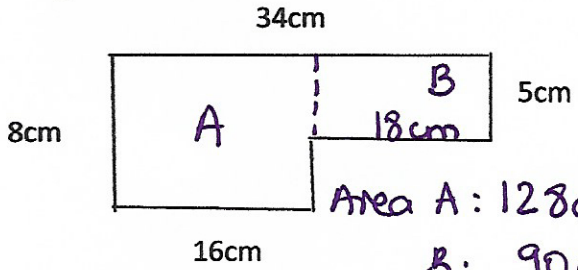
Area B:

24×38

$= 912\text{mm}^2$

Total Area: 1520mm^2

4.

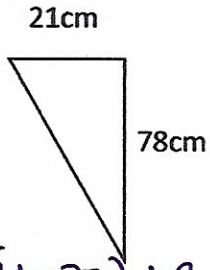


Area A: 128cm^2

B: 90cm^2

Total 218cm^2

5.

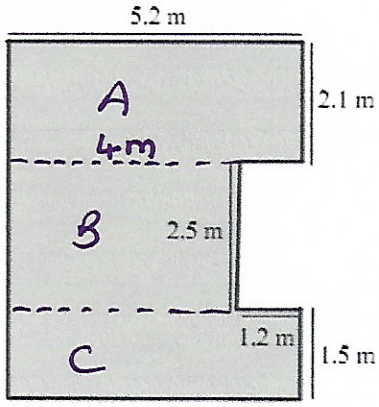


Area = $(21 \times 78) \div 2$

$$\begin{array}{r} 78 \\ \times\ 21 \\ \hline 78 \\ 1560 \\ \hline 1638 \end{array}$$

$$2\overline{)1638} = 819\text{cm}^2$$

7.



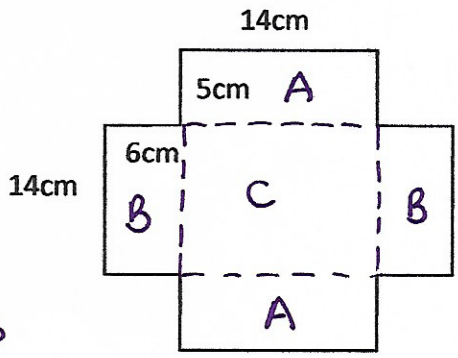
Area A: $5.2 \times 2.1 = 10.92$

Area B: $2.5 \times 4 = 10.00$

Area C: $5.2 \times 1.5 = 7.80$

Total Area 28.72m^2

Challenge



Area A: $14 \times 5 = 70$

Area B: $14 \times 6 = 84$

Area C: $14 \times 14 = 196$

Challenge

Total Area:

$(2 \times 70) + (2 \times 84) + 196$

$140 + 178 + 196$

$= 514\text{cm}^2$