

Convert metric measures of lengths

1 a) Match the measurements to the numbers.

| | |
|------------|-------|
| cm in a m | 10 |
| mm in a cm | 100 |
| m in a km | 1,000 |

b) Nijah thinks there are one million millimetres in a metre.

Is Nijah correct? _____

Show workings to support your answer.



2 Work out the calculations.

| | |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------|
| a) $7 \times 10 =$ <input style="width: 60px; height: 25px;" type="text"/> | c) $1.7 \times 10 =$ <input style="width: 60px; height: 25px;" type="text"/> |
| $7 \times 100 =$ <input style="width: 60px; height: 25px;" type="text"/> | $1.7 \times 100 =$ <input style="width: 60px; height: 25px;" type="text"/> |
| $7 \times 1,000 =$ <input style="width: 60px; height: 25px;" type="text"/> | $1.7 \times 1,000 =$ <input style="width: 60px; height: 25px;" type="text"/> |
| b) $17 \times 10 =$ <input style="width: 60px; height: 25px;" type="text"/> | d) $0.7 \times 10 =$ <input style="width: 60px; height: 25px;" type="text"/> |
| $17 \times 100 =$ <input style="width: 60px; height: 25px;" type="text"/> | $0.7 \times 100 =$ <input style="width: 60px; height: 25px;" type="text"/> |
| $17 \times 1,000 =$ <input style="width: 60px; height: 25px;" type="text"/> | $0.7 \times 1,000 =$ <input style="width: 60px; height: 25px;" type="text"/> |

3 Convert the lengths to metres.

| | | |
|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| a) 2 km | 2.5 km | 2.05 km |
| <input style="width: 60px; height: 25px;" type="text"/> m | <input style="width: 60px; height: 25px;" type="text"/> m | <input style="width: 60px; height: 25px;" type="text"/> m |
| b) 600 cm | 650 cm | 605 cm |
| <input style="width: 60px; height: 25px;" type="text"/> m | <input style="width: 60px; height: 25px;" type="text"/> m | <input style="width: 60px; height: 25px;" type="text"/> m |
| c) 65 cm | 6.5 cm | 6.5 km |
| <input style="width: 60px; height: 25px;" type="text"/> m | <input style="width: 60px; height: 25px;" type="text"/> m | <input style="width: 60px; height: 25px;" type="text"/> m |

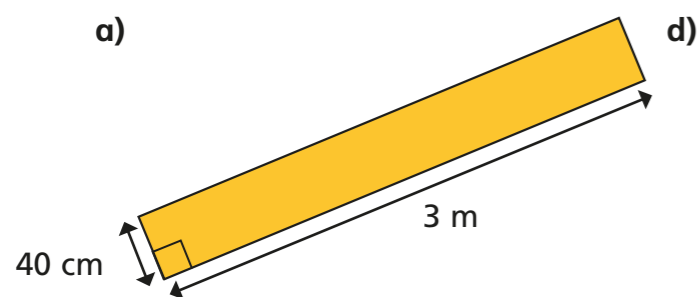
4 Convert the lengths to centimetres.

| | | |
|------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| a) 3 m | 3.5 m | 0.35 m |
| <input style="width: 60px; height: 25px;" type="text"/> cm | <input style="width: 60px; height: 25px;" type="text"/> cm | <input style="width: 60px; height: 25px;" type="text"/> cm |
| b) 80 mm | 800 mm | 8 m |
| <input style="width: 60px; height: 25px;" type="text"/> cm | <input style="width: 60px; height: 25px;" type="text"/> cm | <input style="width: 60px; height: 25px;" type="text"/> cm |
| c) 92 mm | 92 m | 9.2 m |
| <input style="width: 60px; height: 25px;" type="text"/> cm | <input style="width: 60px; height: 25px;" type="text"/> cm | <input style="width: 60px; height: 25px;" type="text"/> cm |

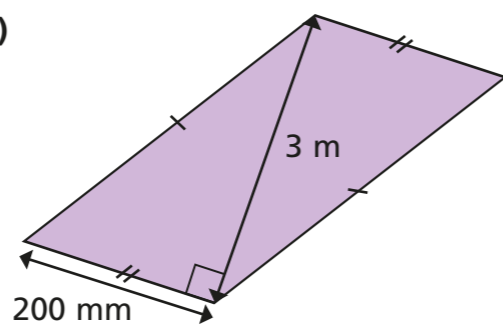
5 Write $>$, $<$ or $=$ to complete the statements.

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) 12 cm <input style="width: 20px; height: 20px; border: 1px solid black; border-radius: 50%; display: inline-block; vertical-align: middle;" type="text"/> 120 mm | c) 300 m <input style="width: 20px; height: 20px; border: 1px solid black; border-radius: 50%; display: inline-block; vertical-align: middle;" type="text"/> 3,000 cm |
| b) 4 m <input style="width: 20px; height: 20px; border: 1px solid black; border-radius: 50%; display: inline-block; vertical-align: middle;" type="text"/> 40 cm | d) 0.6 m <input style="width: 20px; height: 20px; border: 1px solid black; border-radius: 50%; display: inline-block; vertical-align: middle;" type="text"/> 600 mm |

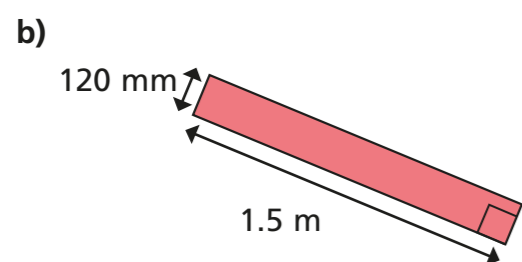
- 6 Find the area of each shape. Give your answers in cm^2
The diagrams are not drawn to scale.



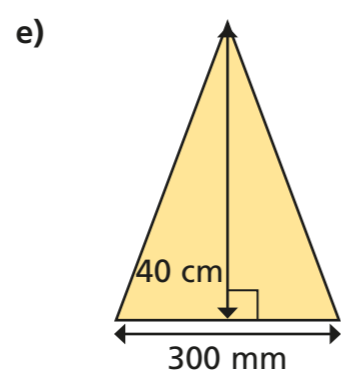
cm^2



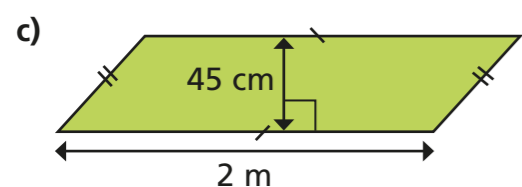
cm^2



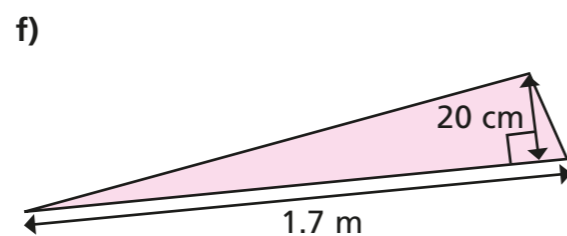
cm^2



cm^2

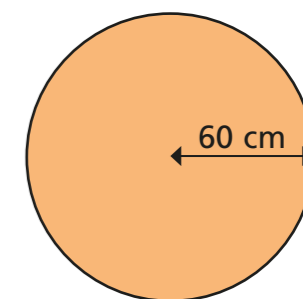


cm^2



cm^2

- 7 A circle has a radius of 60 cm.
Use $\pi = 3.14$, to work out the circumference of the circle.
Give your answer in metres.



m

- 8 The perimeter of a rectangle is 3.7 m.
One side of the rectangle is 42 cm long.
Work out the length of the other side of the rectangle.

- 9 a) How many millimetres are there in 1 kilometre?

- b) A rectangular field measures 600 m by 2 km.
Convert the side lengths to mm and find the area of the field in mm^2
Give your answer in standard form.

mm^2