Scale

Scale = $\dfrac{drawing}{real}$

$2 : 25 \Rightarrow \dfrac{2}{25}$

1. The scale diagram uses a scale of **1:40**
   How long is it?

   drawing → 8cm
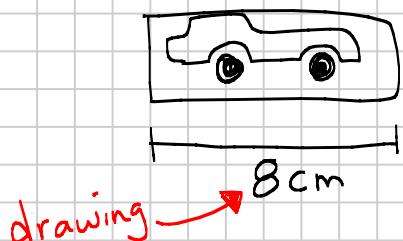
   $\dfrac{1}{40} \underset{\times}{=} \dfrac{8}{?}$

   ? = 320 cm

2. The caterpillar is enlarged with a scale of **1: 0.3**. How big is the bug.

   15mm
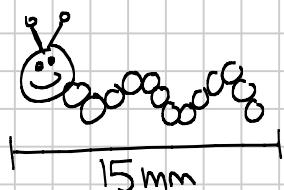
   $\dfrac{1}{0.3} \underset{\times}{=} \dfrac{15}{R}$

   R = 4.5 mm

Scale Factor always $\dfrac{1}{Something}$ when you set up Question so you can cross multiply to solve.

1. A quarter has a diameter of 25mm. You have a drawing that has a diameter of

14mm. What is the scale factor?

$$\frac{D}{R} = \frac{14}{25} \quad \diagdown \quad \frac{1}{x}$$

$$\frac{14x}{14} = \frac{25}{14}$$

$$x = 1.78$$

S.F = $\frac{1}{1.78}$

1 : 1.78

↑
could also write
answer for S.F
1 ÷ 1.78 = 0.56

☆

2. Find Scale Factor (3 ways)
Real picnic table 200cm long.
Diagram picnic table 16cm long.

$$\frac{D}{R} = \frac{16}{200} \quad \diagdown \quad \frac{1}{x}$$

$$\frac{16x}{16} = \frac{200}{16}$$

$$x = 12.5$$

S.F = $\frac{1}{12.5}$

1 : 12.5

1 ÷ 12.5 = 0.08

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