

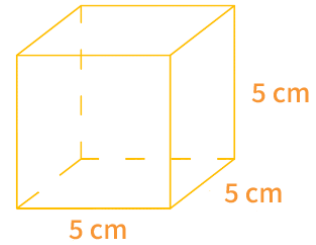
Topic 5
SCREEDS

Worksheet No.6

Do the calculates

You have a sample of construction cement screed with a cubic shape and dimensions 5/5/5 cm.

The mass of the cube is 125 g.



Find the volume density of the cement screed.

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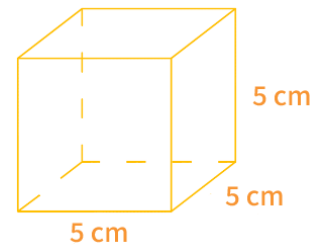
The compressive force that destroys the sample is 37.5 kN. Find the compressive strength of the sample.

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You have a sample of construction cement screed with a cubic shape and dimensions 5/5/5 cm.

The mass of the cube is 125 g.



Find the volume density of the cement screed.

$$\rho = m/V = 0.125 \text{ kg} / (0.05 * 0.05 * 0.05) = 1000 \text{ kg/m}^3$$

The compressive force that destroys the sample is 37.5 kN. Find the compressive strength of the sample.

$$R = F/A = 37.5 \text{ kN} / (5 \text{ cm} * 5 \text{ cm}) = 37500 \text{ N} / 2500 \text{ mm}^2 = 15 \text{ Mpa}$$