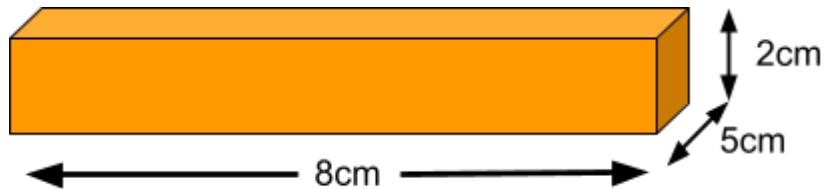


QT Compound Measures



1. A bar of gold has a length of 8cm, a height of 5cm and a width of 2cm as shown below. The bar of gold has a mass of 1.52kg. Work out the density of the bar of gold giving your answer in g/cm^3

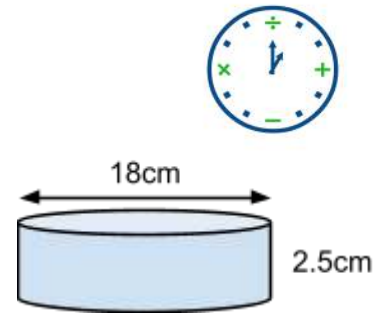


2. A steel block exerts a force of 120 Newtons on the ground. The block has an area of 2.5m^2 . Work out the pressure on the ground, giving your answer in N/m^2

3. A crystal rock has a density of 1.6 g/cm^3 and a mass of 80g. Work out the volume of the crystal rock.

QT Compound Measures

4. A solid cylinder is made of wood.
It has a diameter of 18cm and a height of 2.5cm
The cylinder has a mass of 392 grams
Work out the density of the wood



Give your answer correct to 2 significant figures.

5. A train travels a distance of 295 miles in 3 hours and 20 minutes. Work out the average speed of the train in miles per hour.

6. An iron bar exerts a force of 38 Newtons on a table. The pressure on the table is 30 N/m^2 . Work out the area of the iron bar that is in contact with the table.

QT Compound Measures



7. Govin drives 200 miles from Leeds to London. He drives the first 78 miles at an average speed of 65mph. From this point it takes Govin 1 hour and 48 minutes to complete his journey.

Work out Govin's average speed for the whole journey.

Give your answer correct to 1 decimal place.

8. John drives from Leeds to London at an average speed of 65 miles per hour. The journey takes him 3 hours and 15 minutes.

Julie makes the same journey in 3 hours and 35 minutes.

Work out Julie's average speed for the journey.

Give your answer correct to 2 significant figures.

QT Compound Measures



9. A cylinder is placed on the ground. The cylinder has a weight of 95 Newtons and a radius of 3cm. Work out the pressure on the ground in N / cm^2

10. A cone with a perpendicular height of 20cm, is placed on a table. The weight of the cone is 62N. The cone exerts a pressure of $4200 \text{ N} / \text{m}^2$ on the table. Work out the volume of the cone, giving your answer in cm^3 .

$$\text{Volume of cone} = \frac{1}{3}\pi r^2 h$$

$$\text{Curved surface area of cone} = \pi r l$$

