**Converting between measurements - Length**

Metric measurements of length

You should be familiar with the following measurement units.

Length – millimetre (mm) centimetre (cm) metre (m) kilometre (km)

The standard unit is the metre.

Milli means thousandth 1mm = 1/1000 of a metre

Centi means hundredth 1cm = 1/100 of a metre

Kilo means thousand 1km = 1000m

There are 1000 mm in a metre.

There are 100 cm in a metre.

There are 1000 m in a kilometre.

Also – 1cm = 10mm (Look on a ruler and you will see this.)

Now we can start converting between the various units. (We will start easy and then proceed from there.)

1. 1m = 100cm so 3m = ……………….. cm
2. 4m = ……………….cm
3. 7m = …………………cm
4. 0.5m or ½ m = ………………..cm
5. 2.5m = ……………….cm
6. 6.5m = ……………….. cm
7. 9.5m = …………………cm
8. 0.3m = ………………….cm (This will be less than 100!)
9. 2.4m = …………………cm (remember that 2m = 200cm)
10. 5.1m = ………………….cm

Answers

1. 300cm
2. 400cm
3. 700cm
4. 50cm (1/2 of 100)
5. 250cm
6. 650cm
7. 950cm
8. 30cm
9. 240cm
10. 510cm

Let’s try it the other way.

1. 100cm = 1m so 400cm = ………………m
2. 700cm = …………………..m
3. 800cm = …………………..m
4. 50cm = ………………….m (answer will be a decimal or a fraction)
5. 350cm = …………………m (answer will be a decimal or a mixed number)
6. 650cm = ………………….m (answer will be a decimal or a mixed number)
7. 40cm = …………………….m (answer will be a decimal less than 1)
8. 540cm = …………………m (answer will be a decimal bigger than 5)
9. 720cm = …………………m
10. 980cm = …………………m

Answers

1. 4m
2. 7m
3. 8m
4. 0.5m or ½ m
5. 3.5m
6. 6.5m
7. 0.4m
8. 5.4m
9. 7.2m
10. 9.8m

Problem solving – Start easy and then proceed. Draw a quick illustration of the challenge if it helps.

1. Bob cuts a piece of wood 150cm long and a second piece 60cm long. How long is the piece in **metres**?
2. Jill grows two sunflowers. One is 170cm tall and the other is 150cm tall. What is their **total** height in **metres**?
3. A rectangular jigsaw measures 80cm wide and 60cm long. What is its perimeter (the distance all the way round) in **metres**?
4. Jen is laying a patio. She lays patio slabs that are 30cm square. How wide is the patio in **metres** if she lays 8 slabs across?

How long is the patio in **metres** if she lays 11 slabs down?

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1. A tree in Bob’s garden is 450cm tall. One in Jill’s garden is 270cm tall. What is the **difference** in height in **metres** between the trees?