1)

Length	millimetre (mm)
	centimetres (cm)
	metres (_**m**_)
	kilometres (*km*)
Mass	*grams* (g)
	kilograms (*kg*)
	tonnes (t)
Capacity and volume	*millilitres* (ml)
	litres (*l*)

2) The height of a door could be measured in metres (m) or centimetres (cm).
The volume of water in a glass would be measured in millilitres (ml).
The length of a pencil point would be measured in millimetres (mm).
The mass of a person would be measured in kilograms (kg).
The length of a reading book would be measured in centimetres (cm).
The mass of a rubber would be measured in grams (g).

3) a) An elephant weighs approximately 5 tonnes.

b) An drinking glass holds approximately 0.2l.

c) A man has a height of approximately 1.8m.

1) Hamza has ordered the masses based on the size of the units of measurement. He has assumed that tonnes are always the heaviest mass and grams are the lightest mass.

Megan has ordered the mass based on the size of the number given and ignored the units. Therefore she has made 1 000 000g the heaviest as it has the largest number size and has made 1 tonne the lightest mass as it has the smallest number size.

All of these measurements are equal, so they should be at the same point on the diagrams.

2) a) Sometimes true. For example, 1km is longer than 1m; however, 1500m is longer than 1km.

b) Never true. Capacity measures the amount an object can contain and volume measures the amount an object actually contains. The volume of the water in a half-full litre bottle is half a litre, not a whole litre.

c) This is sometimes true. Although we would normally use grams to show the mass of a small object, it is also possible to show a mouse's mass in kgs and even tonnes, although we would need to make use of a longer, decimal number.

1) Average height of a desk is 0.9m. So Daniel's dad would be 1.8m which can be rounded to 2m to make an estimate.
2m × 4 = 8m
The house is approximately 8m.

2) 30 × 85m = 2550m or 2.5km
Daniel walks approximately 2500m or 2.5km to primary school. To estimate the distance to his brother's secondary school: 2.5 × 9 = 22.5km

3) Assuming no rest breaks are taken. All answers are approximations only.

a) 30km

b) 120km

c) 840km

d) 43 800km