C26

Measures

CHAPTER ASSIGNMENT · 13 MARKS

Name _____ Class _____ No. _____ Date _____

Answer every question in the space given. Work without a calculator. Show the multiplication or division you use for each conversion.

Practice questions from *Cambridge IGCSE Mathematics Core and Extended* (4th edition), Chapter 26 (Measures), for classroom use. The Check yourself and Chapter quiz questions are Guru Jazzy's own.

Exercise 26.1 · Metric units

26.1.1 Copy and complete the sentences below:

Sentence	Answer
(a) There are ... centimetres in one metre.	
(b) There are ... millimetres in one metre.	
(c) One metre is one ... of a kilometre.	
(d) One milligram is one ... of a gram.	
(e) One thousandth of a litre is one	

26.1.2 Which of the units below would be used to measure the following? mm, cm, m, km, mg, g, kg, t, ml, litres

Measurement	Unit	Measurement	Unit
(a) your height		(f) the mass of a ship	
(b) the length of your finger		(g) the capacity of a swimming pool	
(c) the mass of a shoe		(h) the length of a highway	
(d) the amount of liquid in a cup		(i) the mass of an elephant	
(e) the height of a van		(j) the capacity of the petrol tank of a car	

Exercise 26.2 · Converting length

26.2.1 Put in the missing unit to make the following statements correct:

(a)	(b)	(c)	(d)	(e)
300 ... = 30 cm	6000 mm = 6 ...	3.2 m = 3200 ...	4.2 ... = 4200 mm	2.5 km = 2500 ...

26.2.2 Convert the following to millimetres:

(a)	(b)	(c)	(d)	(e)
8.5 cm	23 cm	0.83 m	0.05 m	0.004 m

26.2.3 Convert the following to metres:

(a)	(b)	(c)	(d)	(e)
560 cm	6.4 km	96 cm	0.004 km	12 mm

26.2.4 Convert the following to kilometres:

(a)	(b)	(c)	(d)	(e)
1150 m	250 000 m	500 m	70 m	8 m

Exercise 26.3 · Converting mass

26.3.1 Convert the following:

(a)	(b)	(c)	(d)	(e)
3.8 g to mg	28 500 kg to tonnes	4.28 tonnes to kg	320 mg to g	0.5 tonnes to kg

Exercise 26.4 · Capacity

26.4.1 Calculate the following and give the totals in ml:

(a)	(b)	(c)	(d)
3 litres + 1500 ml	0.88 litre + 650 ml	0.75 litre + 6300 ml	450 ml + 0.55 litre

26.4.2 Calculate the following and give the total in litres:

(a)	(b)	(c)	(d)
0.75 litre + 450 ml	850 ml + 490 ml	0.6 litre + 0.8 litre	80 ml + 620 ml + 0.7 litre

Exercise 26.5 · Area and volume conversions

26.5.1 Convert the following areas:

(a)	(b)	(c)	(d)	(e)
10 m^2 to cm^2	2 m^2 to mm^2	5 km^2 to m^2	3.2 km^2 to m^2	8.3 cm^2 to mm^2

26.5.2 Convert the following areas:

(a)	(b)	(c)	(d)	(e)
500 cm^2 to m^2	15 000 mm^2 to cm^2	1000 m^2 to km^2	40 000 mm^2 to m^2	2 500 000 cm^2 to km^2

26.5.3 Convert the following volumes:

(a)	(b)	(c)	(d)	(e)
2.5 m^3 to cm^3	3.4 cm^3 to mm^3	2 km^3 to m^3	0.2 m^3 to cm^3	0.03 m^3 to mm^3

26.5.4 Convert the following volumes:

(a)	(b)	(c)	(d)	(e)
150 000 cm^3 to m^3	24 000 mm^3 to cm^3	850 000 m^3 to km^3	300 mm^3 to cm^3	15 cm^3 to m^3

Student assessment 1

SA1.1 Convert the following lengths into the units indicated:

(a)	(b)	(c)	(d)
2.6 cm to mm	0.88 m to cm	6800 m to km	0.875 km to m

SA1.2 Convert the following masses into the units indicated:

(a)	(b)	(c)	(d)
4.2 g to mg	3940 g to kg	4.1 kg to g	0.72 tonnes to kg

SA1.3 Convert the following liquid measures into the units indicated:

(a)	(b)	(c)	(d)
1800 ml to litres	3.2 litres to ml	0.083 litre to ml	250 000 ml to litres

SA1.4 Convert the following areas: (part (b) is printed as a volume in the book)

(a)	(b)
56 cm^2 to mm^2	2.05 m^3 to cm^3

SA1.5 Convert the following volumes:

(a)	(b)
8670 cm^3 to m^3	444 000 cm^3 to m^3

Student assessment 2

SA2.1 Convert the following lengths into the units indicated:

(a)	(b)	(c)	(d)
3100 mm to cm	6.4 km to m	0.4 cm to mm	460 mm to cm

SA2.2 Convert the following masses into the units indicated:

(a)	(b)	(c)	(d)
3.6 mg to g	550 mg to g	6500 g to kg	1510 kg to tonnes

SA2.3 Convert the following measures of capacity to the units indicated:

(a)	(b)	(c)	(d)
3400 ml to litres	6.7 litres to ml	0.73 litre to ml	300 000 ml to litres

SA2.4 Convert the following areas:

(a)	(b)
0.03 m^2 to mm^2	0.005 km^2 to m^2

SA2.5 Convert the following volumes:

(a)	(b)
100 400 cm^3 to m^3	5005 m^3 to km^3

Check yourself

1 A student says 1 m^2 = 100 cm^2. Draw a sketch to show why this is wrong, and give the correct value. [3]

2 Explain how you decide whether to multiply or divide when you change from one unit to another. [2]

3 A water tank holds 0.6 m^3. Given that 1 litre = 1000 cm^3, how many litres does it hold? [3]

4 A rectangle measures 2.5 m by 40 cm. Find its area in m^2 and in cm^2. [3]

5 Which is heavier: 0.04 tonnes or 3900 g? Show your working. [2]

Chapter quiz

Q1 How many millimetres are there in 1 metre?

A	B	C	D
10	100	1000	10 000

Q2 Convert 3.6 km to metres.

A	B	C	D
36 m	360 m	3600 m	36 000 m

Q3 Convert 450 cm to metres.

A	B	C	D
0.45 m	4.5 m	45 m	4500 m

Q4 Which unit is best for the mass of a paper clip?

A	B	C	D
grams	kilograms	tonnes	litres

Q5 Convert 2.4 tonnes to kilograms.

A	B	C	D
24 kg	240 kg	2400 kg	24 000 kg

Q6 How many grams is 750 mg?

A	B	C	D
0.075 g	0.75 g	7.5 g	75 g

Q7 Work out 1.2 litres + 350 ml. Give the total in ml.

A	B	C	D
362 ml	1235 ml	1550 ml	4700 ml

Q8 How many cm^2 are there in 1 m^2?

A	B	C	D
100	1000	10 000	1 000 000

Q9 Convert 4 cm^2 to mm^2.

A	B	C	D
40 mm^2	400 mm^2	4000 mm^2	0.04 mm^2

Q10 How many cm^3 are there in 1 m^3?

A	B	C	D
1000	10 000	100 000	1 000 000

Q11 Convert 5000 mm^3 to cm^3.

A	B	C	D
0.5 cm^3	5 cm^3	50 cm^3	500 cm^3

Q12 From cm to mm the length factor is 10. What is the factor for volume?

A	B	C	D
30	100	1000	10 000