

11+ Maths Practice Paper

Year 6 · Advanced

Lesson 6.1: Metric conversions

Read this with your child:

1. This paper has **27 questions** in two parts. Work through them in order. The questions get harder as you go.
2. **Part 1** is multiple choice. Choose **one** answer, A, B, C, D or E, and mark it on the separate answer sheet by drawing a firm line through the box next to its letter. If you change your mind, rub the line out completely and mark your new answer.
3. **Part 2** asks you to write your answer. Write it in the boxes on the answer sheet, **one digit in each box**, starting from the left.
4. If a question is hard, leave it and come back to it at the end.
5. You may use rough paper for working out. You may **not** use a calculator.
6. Suggested time: **35 minutes**.

The answer sheet is after the questions. The answers, with a short explanation of each, are at the back for a parent to mark with.

These are original practice questions written by Elite Learners in the style of 11+ entrance tests. They are not produced by, or connected with, GL Assessment or Cambridge University Press & Assessment (CEM).

Example

Change 45 g into kilograms.

- A** 0.045 kg **B** 0.45 kg **C** 4.5 kg **D** 0.0045 kg **E** 45,000 kg

Answer: A 1000 g make 1 kg, so $45 \div 1000$: every digit moves 3 places to the right, giving 0.045 kg.

The answer, A, has already been marked on your answer sheet.

Now turn over and start Part 1.

Part 1: Multiple choice

1

Change 0.3 km into metres.

- A** 30 m **B** 3000 m **C** 300 m **D** 0.003 m **E** 3 m

2

Change 1250 mm into metres.

- A** 12.5 m **B** 125 m **C** 0.125 m **D** 1.25 m **E** 1.025 m

3

Change 0.08 m into millimetres.

- A** 8 mm **B** 80 mm **C** 800 mm **D** 0.8 mm **E** 0.08 mm

4

Change 7 cm into metres.

- A** 0.7 m **B** 0.007 m **C** 0.07 m **D** 70 m **E** 700 m

5

Write 3 litres 5 ml in litres.

- A** 3.5 litres **B** 3.05 litres **C** 3.005 litres **D** 35 litres **E** 3.0005 litres

6

Which of these is the lightest?

- A** 0.054 kg **B** 0.45 kg **C** 405 g **D** 540 g **E** 4.5 kg

7

Which list is in order, shortest first?

- A** 0.045 km, 405 m, 0.45 km, 4500 m
B 405 m, 0.45 km, 0.045 km, 4500 m
C 0.045 km, 0.45 km, 405 m, 4500 m
D 4500 m, 0.45 km, 405 m, 0.045 km
E 0.45 km, 0.045 km, 405 m, 4500 m

8

How many square centimetres are in 1 m^2 ?

- A 100 cm^2
- B 1000 cm^2
- C $1,000,000 \text{ cm}^2$
- D $10,000 \text{ cm}^2$
- E 200 cm^2

9

Change 5 cm^2 into mm^2 .

- A 50 mm^2
- B 5000 mm^2
- C 25 mm^2
- D 0.5 mm^2
- E 500 mm^2

10

Change 3 cm^3 into mm^3 .

- A 30 mm^3
- B 3000 mm^3
- C 300 mm^3
- D 13 mm^3
- E 9 mm^3

11

1 ml of water takes up 1 cm^3 .

How many cm^3 of water fill a 1.5 litre bottle?

- A 15 cm^3
- B 150 cm^3
- C 1050 cm^3
- D 1.5 cm^3
- E 1500 cm^3

12

Change 2400 mm^2 into cm^2 .

- A 240 cm^2
- B 24 cm^2
- C 2.4 cm^2
- D 0.24 cm^2
- E 2400 cm^2

13

A kitchen scale goes from 0 to 2 kg. It has a number every 0.5 kg, with 5 gaps between each pair of numbers.

The needle is 3 small marks past 1 kg.

What is the mass?

- A 1.03 kg
- B 1.6 kg
- C 1.15 kg
- D 1.5 kg
- E 1.3 kg

14

A recipe uses 150 g of butter for each cake.

How many cakes can be made from 1.2 kg of butter?

- A** 80 **B** 0.8 **C** 12 **D** 7 **E** 8
-

15

A bottle of medicine holds 0.2 litres. One dose is 5 ml.

How many doses are in the bottle?

- A** 4 **B** 400 **C** 40 **D** 25 **E** 20
-

16

A pack has 12 cans. Each can holds 330 ml.

How many litres do the cans hold altogether?

- A** 3.96 litres **B** 39.6 litres **C** 396 litres **D** 0.396 litres **E** 3.3 litres
-

17

One lap of a track is 250 m.

How many laps make 3.5 km?

- A** 14 **B** 140 **C** 1.4 **D** 12 **E** 15
-

18

Which of these is NOT the same length as the others?

- A** 3.4 m **B** 0.34 km **C** 340 cm **D** 3400 mm **E** 0.0034 km
-

19

Change 2.5 m^2 into cm^2 .

- A** 250 cm^2
B 2500 cm^2
C $250,000 \text{ cm}^2$
D $25,000 \text{ cm}^2$
E $2,500,000 \text{ cm}^2$
-

20

A fish tank holds 60 litres. A jug holds 1500 ml.

How many full jugs of water will fill the tank?

A 4

B 400

C 90

D 40

E 25

Part 2: Write your answer

21

How many grams are in 0.065 kg?

Write your answer in the boxes on the answer sheet, one digit in each box.

22

How many metres are in 4.8 km?

Write your answer in the boxes on the answer sheet, one digit in each box.

23

How many millilitres are in 7.25 litres?

Write your answer in the boxes on the answer sheet, one digit in each box.

24

Ravi cuts 4 m of rope into pieces 16 cm long.

How many pieces does he get?

Write your answer in the boxes on the answer sheet, one digit in each box.

25

How many mm^2 are in 3.5 cm^2 ?

Write your answer in the boxes on the answer sheet, one digit in each box.

26

Ava has a 2 kg bag of flour. She bakes 3 cakes that each use 375 g.

How many grams of flour are left?

Write your answer in the boxes on the answer sheet, one digit in each box.

27

1 ml of water takes up 1 cm^3 .

How many cm^3 of water fill a 1.2 litre jug?

Write your answer in the boxes on the answer sheet, one digit in each box.

Answer sheet

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Name

Draw a firm line through the box next to your answer, like the example.

Part 1: Multiple choice

Ex	A ☒	B ☐	C ☐	D ☐	E ☐
1	A ☐	B ☐	C ☐	D ☐	E ☐
2	A ☐	B ☐	C ☐	D ☐	E ☐
3	A ☐	B ☐	C ☐	D ☐	E ☐
4	A ☐	B ☐	C ☐	D ☐	E ☐
5	A ☐	B ☐	C ☐	D ☐	E ☐
6	A ☐	B ☐	C ☐	D ☐	E ☐
7	A ☐	B ☐	C ☐	D ☐	E ☐
8	A ☐	B ☐	C ☐	D ☐	E ☐
9	A ☐	B ☐	C ☐	D ☐	E ☐
10	A ☐	B ☐	C ☐	D ☐	E ☐
11	A ☐	B ☐	C ☐	D ☐	E ☐
12	A ☐	B ☐	C ☐	D ☐	E ☐
13	A ☐	B ☐	C ☐	D ☐	E ☐
14	A ☐	B ☐	C ☐	D ☐	E ☐
15	A ☐	B ☐	C ☐	D ☐	E ☐
16	A ☐	B ☐	C ☐	D ☐	E ☐
17	A ☐	B ☐	C ☐	D ☐	E ☐
18	A ☐	B ☐	C ☐	D ☐	E ☐
19	A ☐	B ☐	C ☐	D ☐	E ☐
20	A ☐	B ☐	C ☐	D ☐	E ☐

Part 2: Write your answer, one digit in each box

21		25	
22		26	
23		27	
24			

Answers

For a parent to mark with. One mark for each question: the paper is out of 27. Talk through any your child got wrong, using the explanation.

Q	Answer	How to get it
1	C 300 m	1 km = 1000 m, so $0.3 \times 1000 = 300$ m.
2	D 1.25 m	1 m = 100 cm = 1000 mm, so $1250 \div 1000 = 1.25$ m.
3	B 80 mm	1 m = 1000 mm, so $0.08 \times 1000 = 80$ mm.
4	C 0.07 m	100 cm make 1 m, so $7 \div 100 = 0.07$ m.
5	C 3.005 litres	3 litres 5 ml = 3005 ml, and $3005 \div 1000 = 3.005$ litres.
6	A 0.054 kg	In grams: 0.45 kg = 450 g, 4.5 kg = 4500 g and 0.054 kg = 54 g. 54 g is the lightest.
7	A 0.045 km, 405 m, 0.45 km, 4500 m	In metres: 0.045 km = 45 m and 0.45 km = 450 m. So 45, 405, 450, 4500.
8	D 10,000 cm ²	1 m = 100 cm, so $1 \text{ m}^2 = 100 \times 100 = 10,000 \text{ cm}^2$.
9	E 500 mm ²	$1 \text{ cm}^2 = 10 \times 10 = 100 \text{ mm}^2$, so $5 \times 100 = 500 \text{ mm}^2$.
10	B 3000 mm ³	$1 \text{ cm}^3 = 10 \times 10 \times 10 = 1000 \text{ mm}^3$, so $3 \times 1000 = 3000 \text{ mm}^3$.
11	E 1500 cm ³	1.5 litres = 1500 ml, and 1 ml = 1 cm ³ , so 1500 cm ³ .
12	B 24 cm ²	100 mm ² make 1 cm ² , so $2400 \div 100 = 24 \text{ cm}^2$.
13	E 1.3 kg	Each gap is $0.5 \div 5 = 0.1$ kg (100 g). Three marks past 1 kg is $1 + 0.3 = 1.3$ kg.
14	E 8	1.2 kg = 1200 g, and $1200 \div 150 = 8$ cakes.
15	C 40	0.2 litres = 200 ml, and $200 \div 5 = 40$ doses.
16	A 3.96 litres	$12 \times 330 = 3960$ ml, and $3960 \div 1000 = 3.96$ litres.
17	A 14	3.5 km = 3500 m, and $3500 \div 250 = 14$ laps.
18	B 0.34 km	3.4 m = 340 cm = 3400 mm = 0.0034 km. But 0.34 km = 340 m, which is much longer.
19	D 25,000 cm ²	$1 \text{ m}^2 = 10,000 \text{ cm}^2$, so $2.5 \times 10,000 = 25,000 \text{ cm}^2$.
20	D 40	60 litres = 60,000 ml, and $60,000 \div 1500 = 40$ jugs.
21	65	$0.065 \times 1000 = 65$ g.
22	4,800	$4.8 \times 1000 = 4800$ m.
23	7,250	$7.25 \times 1000 = 7250$ ml.
24	25	4 m = 400 cm, and $400 \div 16 = 25$ pieces.
25	350	$1 \text{ cm}^2 = 100 \text{ mm}^2$, so $3.5 \times 100 = 350 \text{ mm}^2$.
26	875	$3 \times 375 = 1125$ g, and 2 kg = 2000 g. $2000 - 1125 = 875$ g.
27	1,200	1.2 litres = 1200 ml = 1200 cm ³ .

Score: out of 27