FOUNDATION

# 1.4D Metric Conversions: Fluency and Exam Drill

Total Marks

EDEXCEL Edexcel 1MA1 · Calculator allowed · about 45 minutes

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** Convert 3500 metres to kilometres.

**(Total for Question 1 is 1 mark)**

**2** Convert 7.25 kilograms to grams.

**(Total for Question 2 is 1 mark)**

**3** Convert 4800 millilitres to litres.

**(Total for Question 3 is 1 mark)**

**4** Convert 0.06 kilometres to metres.

**(Total for Question 4 is 1 mark)**

**5** Convert 250 centimetres to metres.

**(Total for Question 5 is 1 mark)**

**6** Convert 5.2 litres to millilitres.

**(Total for Question 6 is 1 mark)**

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**7** Convert 3.6 tonnes to kilograms.

**(Total for Question 7 is 1 mark)**

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**8** Convert 1250 grams to kilograms.

**(Total for Question 8 is 1 mark)**

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**9** A ribbon is 0.85 metres long. Work out its length in centimetres.

**(Total for Question 9 is 2 marks)**

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**10** A small water tank has a volume of 2.5 $m^3$. Convert this volume to litres.

**(Total for Question 10 is 2 marks)**

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**11** Convert 1500 $cm^2$ to $m^2$.

**(Total for Question 11 is 2 marks)**

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**12** A rectangular garden is 12 m long and 75 cm wide. Work out the area of the garden in $m^2$.

**(Total for Question 12 is 3 marks)**

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**13** A recipe needs 0.75 kg of flour. Flour is sold in 250 g packets. How many packets are needed?

**(Total for Question 13 is 3 marks)**

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**14** A paving slab measures 45 cm by 30 cm. How many such slabs are needed to cover an area of 5 $m^2$? Give your answer as the minimum whole number of slabs required.

**(Total for Question 14 is 4 marks)**

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**15** Convert 0.00032 kilograms to milligrams.

**(Total for Question 15 is 2 marks)**

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**16** Convert 3.6 $m^2$ to $cm^2$.

**(Total for Question 16 is 2 marks)**

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**17** Convert 0.0135 grams to milligrams.

**(Total for Question 17 is 2 marks)**

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**18** A farmer has a field of area 0.72 hectares. Work out the area in square metres.

**(Total for Question 18 is 2 marks)**

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# Mark scheme · 1.4D Metric Conversions: Fluency and Exam Drill

## Question 1

- **B1** 3.5 km cao
- **Answer: 3.5 km, or 3.5 kilometres (cao).**

## Question 2

- **B1** 7250 g cao
- **Answer: 7250 g**

## Question 3

- **B1** 4.8 L or 4.8 litres cao
- **Answer: 4.8 L**

## Question 4

- **B1** 60 m cao
- **Answer: 60 m**

## Question 5

- **B1** 2.5 m cao
- **Answer: 2.5 m**

## Question 6

- **B1** 5200 ml cao
- **Answer: 5200 ml**

## Question 7

- **B1** 3600 kg cao
- **Answer: 3600 kg**

## Question 8

- **B1** 1.25 kg cao
- **Answer: 1.25 kg**

## Question 9

- **M1** convert metres to centimetres, e.g. 0.85 x 100 or 0.85 -> 85
- **A1** 85 cm cao
- **Answer: 85 cm**

## Question 10

- **M1** use 1 $m^3$ = 1000 litres, so 2.5 x 1000
- **A1** 2500 litres cao
- **Answer: 2500 litres**

## Question 11

- **M1** recognise 1 $m^2$ = 10000 $cm^2$ and divide 1500 by 10000
- **A1** 0.15 $m^2$ cao
- **Answer: 0.15 $m^2$**

## Question 12

- **M1** convert width 75 cm to metres (0.75 m) or show equivalent
- **M1** calculate area 12 x 0.75
- **A1** 9 $m^2$ cao
- **Answer: 9 $m^2$**

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### Question 13

- **M1** convert 0.75 kg to grams (750 g) or equivalent
- **M1** divide 750 by 250 to find number of packets
- **A1** 3 packets cao
- **Answer: 3 packets**

### Question 14

- **M1** convert dimensions to metres: 45 cm = 0.45 m, 30 cm = 0.30 m
- **M1** calculate area of one slab 0.45 x 0.30 = 0.135 $m^2$
- **M1** divide required area by slab area: 5 / 0.135 = 37.037... (show division)
- **A1** 38 slabs cao, with reason round up to whole slab
- **Answer: 38 slabs (must round up from 37.037... to whole slabs)**

### Question 15

- **M1** use 1 kg = 1 000 000 mg and multiply 0.00032 x 1 000 000
- **A1** 320 mg cao
- **Answer: 320 mg**

### Question 16

- **M1** recognise 1 $m^2$ = 10 000 $cm^2$ and multiply 3.6 x 10 000
- **A1** 36 000 $cm^2$ cao
- **Answer: 36 000 $cm^2$**

### Question 17

- **M1** use 1 g = 1000 mg and multiply 0.0135 x 1000
- **A1** 13.5 mg cao
- **Answer: 13.5 mg**

### Question 18

- **M1** use 1 hectare = 10 000 $m^2$ and multiply 0.72 x 10 000
- **A1** 7200 $m^2$ cao
- **Answer: 7200 $m^2$**

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