



2.5D Fractions, Decimals and Percentages: Fluency and Exam Drill

EDEXCEL Edexcel 1MA1 · Calculator allowed · about 50 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 Write $\frac{3}{5}$ as a decimal.

(Total for Question 1 is 1 mark)

2 Write $\frac{7}{20}$ as a decimal.

(Total for Question 2 is 1 mark)

3 Write 0.125 as a fraction in its simplest form.

(Total for Question 3 is 1 mark)

4 Write $\frac{5}{8}$ as a percentage.

(Total for Question 4 is 1 mark)

5 Write 250% as a fraction in simplest form.

(Total for Question 5 is 1 mark)

6 Write 0.45 as a percentage.

(Total for Question 6 is 1 mark)

7 Write $\frac{11}{25}$ as a percentage.

(Total for Question 7 is 1 mark)

8 Write 0.875 as a fraction in simplest form.

(Total for Question 8 is 1 mark)

9 Write 3.2 as a percentage.

(Total for Question 9 is 1 mark)

10 Write 125% as a decimal.

(Total for Question 10 is 1 mark)

11 A shirt priced at £40 is reduced by 15%. Work out the sale price.

(Total for Question 11 is 2 marks)

12 Express $\frac{2}{3}$ as a percentage, giving your answer to 1 decimal place.

(Total for Question 12 is 2 marks)

13 Show that $0.272727... = \frac{3}{11}$. You must show the working.

(Total for Question 13 is 2 marks)

- 14** Order the following values from smallest to largest: $\frac{7}{20}$, 0.36, 33%, $\frac{3}{8}$. Give the list in the same format as the question.

(Total for Question 14 is 2 marks)

- 15** A pair of trainers costs £60 after a single 25% discount. Work out the original price.

(Total for Question 15 is 3 marks)

- 16** Write 17.5% as a fraction in its simplest form.

(Total for Question 16 is 2 marks)

- 17** What percentage of 240 is 90? Give your answer as a percentage.

(Total for Question 17 is 3 marks)

- 18** A quantity is increased by 12% and then decreased by 12%. Work out the overall percentage change (state decrease or increase).

(Total for Question 18 is 3 marks)

Mark scheme · 2.5D Fractions, Decimals and Percentages: Fluency and Exam Drill

Question 1

- **B1** 0.6 cao
- **Answer: 0.6**

Question 2

- **B1** 0.35 cao
- **Answer: 0.35**

Question 3

- **B1** $\frac{1}{8}$ cao
- **Answer: $\frac{1}{8}$**

Question 4

- **B1** 62.5% cao
- **Answer: 62.5%**

Question 5

- **B1** $\frac{5}{2}$ cao
- **Answer: $\frac{5}{2}$**

Question 6

- **B1** 45% cao
- **Answer: 45%**

Question 7

- **B1** 44% cao
- **Answer: 44%**

Question 8

- **B1** $\frac{7}{8}$ cao
- **Answer: $\frac{7}{8}$**

Question 9

- **B1** 320% cao
- **Answer: 320%**

Question 10

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

Question 11

- **M1** calculate 15% of 40 or find 85% of 40
- **A1** £34.00 cao
- **Answer: £34.00**

Question 12

- **M1** convert $\frac{2}{3}$ to decimal 0.666... and multiply by 100
- **A1** 66.7% awrt
- **Answer: 66.7%**

Question 13

- **M1** method: let $x = 0.272727\dots$, $100x - x = 27.2727\dots - 0.2727\dots = 27$
- **A1** $3/11$ cso
- **Answer: 3/11**

Question 14

- **M1** convert to common form or compare: $33\% = 0.33$, $7/20 = 0.35$, 0.36 , $3/8 = 0.375$
- **A1** 33% , $7/20$, 0.36 , $3/8$ cao
- **Answer: 33%, 7/20, 0.36, 3/8**

Question 15

- **M1** use equation: $0.75 \times \text{original} = 60$ or realise $\text{original} = 60 / 0.75$
- **M1** perform division $60 / 0.75 = 80$
- **A1** £80.00 cao
- **Answer: £80.00**

Question 16

- **M1** convert: $17.5/100 = 175/1000$ and simplify
- **A1** $7/40$ cao
- **Answer: 7/40**

Question 17

- **M1** correct division $90 / 240$
- **M1** multiply answer by 100
- **A1** 37.5% cao
- **Answer: 37.5%**

Question 18

- **M1** use multiplicative factors 1.12 and 0.88 and multiply
- **M1** evaluate $1.12 \times 0.88 = 0.9856$
- **A1** final change is a decrease of 1.44% ($0.9856 = 98.56\%$ so decrease 1.44%)
- **Answer: Decrease of 1.44%**