

Name _____

Date _____

Stage 7 End-of-unit test 10 — mark scheme

21 questions · 44 marks · calculators are not allowed · allow about 45 minutes

- 1 Write $\frac{3}{4}$ as a percentage. Give the number only. [1]

Answer: 75 $\frac{3}{4} = 0.75 = 75\%$.

- 2 Write 35% as a decimal. [1]

Answer: 0.35 $35 \div 100 = 0.35$.

- 3 Write 45% as a fraction in its simplest form. [2]

Answer: 9/20 $45/100$ divides by 5 to give $9/20$.

- 4 Write $\frac{3}{8}$ as a percentage. Give the number only. [2]

Answer: 37.5 $3 \div 8 = 0.375 = 37.5\%$.

- 5 Is 0.7 the same as 7%? [2]

☐ Yes☐ No**Answer: No** $0.7 = 70\%$. It is 7% that equals 0.07.

- 6 Work out 10% of 240. [1]

Answer: 24 $240 \div 10 = 24$.

- 7 Work out 25% of 48. [1]

Answer: 12 $48 \div 4 = 12$.

- 8 Work out 35% of 80. [3]

Answer: 2810% is 8, so 30% is 24; 5% is 4; $24 + 4 = 28$.

- 9 Work out 17.5% of 240. [3]

Answer: 42 $10\% = 24$, $5\% = 12$, $2.5\% = 6$; $24 + 12 + 6 = 42$.

10 What is the quickest way to find 1% of a number? [1]

- ☐ Divide by 10
- ☐ Divide by 100
- ☐ Multiply by 100
- ☐ Subtract 1

Answer: Divide by 100

1% is one hundredth.

11 Is 20% of 50 the same as 50% of 20? [2]

- ☐ Yes
- ☐ No

Answer: Yes

Both are 10 — both equal $20 \times 50 \div 100$.

12 30% of a number is 24. What is the number? [3]

Answer: 80

10% is 8, so 100% is 80.

13 Increase 200 by 15%. [2]

Answer: 230

15% of 200 = 30, and $200 + 30 = 230$.

14 Decrease 200 by 15%. [2]

Answer: 170

$200 - 30 = 170$.

15 A price rises from 40 to 50. What is the percentage increase? [3]

Answer: 25

The rise is 10, and $10 \div 40 \times 100 = 25\%$.

16 When calculating a percentage change, what do you divide by? [2]

- ☐ The new amount
- ☐ The original amount
- ☐ 100
- ☐ The change

Answer: The original amount

The comparison is with where you started.

17 If a price goes up 10% then down 10%, do you return to the start? [3]

- ☐ Yes
- ☐ No

Answer: No

$100 \rightarrow 110 \rightarrow 99$. The second 10% is of a larger amount.

18 What is 15 as a percentage of 20? [2]

Answer: 75

$15 \div 20 \times 100 = 75\%$.

19 A jacket costing \$90 is reduced by 30%. What is the sale price, in dollars? [3]

Answer: 63

30% of 90 = 27, and $90 - 27 = 63$.

- 20** A class of 25 grows to 30. What is the percentage increase? [3]

Answer: 20

$$5 \div 25 \times 100 = 20\%.$$

- 21** A learner scores 18 out of 25. What percentage is that? [2]

Answer: 72

$$18 \div 25 \times 100 = 72\%.$$

Total: 44 marks