



EP.M101 Percentage Increase and Decrease in Word Problems

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 55 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** A jacket costs £60. The shop reduces the price by 25%. What is the new price?

- ☐ A) £40
- ☐ B) £45
- ☐ C) £35
- ☐ D) £75
- ☐ E) £15

(Total for Question 1 is 1 mark)

- 2** A camera priced at £180 is increased by 10%. What is the new price?

- ☐ A) £162
- ☐ B) £198
- ☐ C) £188
- ☐ D) £200
- ☐ E) £18

(Total for Question 2 is 1 mark)

- 3** A coat costs £80. The price goes up by 15%. What is the new price?

- ☐ A) £96
- ☐ B) £92
- ☐ C) £100
- ☐ D) £88
- ☐ E) £98

(Total for Question 3 is 1 mark)

4 After a 30% reduction an item costs £63. What was the original price?

- ☐ A) £90
- ☐ B) £81
- ☐ C) £70
- ☐ D) £45
- ☐ E) £100

(Total for Question 4 is 1 mark)

5 A class had 24 pupils. The class size increased by 12.5%. How many pupils are there now?

- ☐ A) 26
- ☐ B) 27
- ☐ C) 28
- ☐ D) 30
- ☐ E) 29

(Total for Question 5 is 1 mark)

6 A hat costs £25 before VAT. VAT at 20% is added. What is the total price including VAT?

- ☐ A) £30
- ☐ B) £29
- ☐ C) £25.20
- ☐ D) £35
- ☐ E) £27

(Total for Question 6 is 1 mark)

7 After a 40% discount a jumper costs £39. What was the price before the discount?

- ☐ A) £65
- ☐ B) £60
- ☐ C) £70
- ☐ D) £52
- ☐ E) £78

(Total for Question 7 is 1 mark)

8 Which is the larger absolute change: 25% of £120 or 20% of £150?

- ☐ A) 25% of £120 is larger
- ☐ B) 20% of £150 is larger
- ☐ C) They are equal
- ☐ D) Cannot be determined
- ☐ E) Neither is a percentage

(Total for Question 8 is 1 mark)

9 A teacher receives an 8% pay rise. Her salary was £22,500. Work out her new salary.

(Total for Question 9 is 2 marks)

Mark scheme · EP.M101 Percentage Increase and Decrease in Word Problems

Question 1

- **B1** correct option B (£45) cao
- **Answer: B) £45** (25 % of £60 is £15, so $60 - 15 = £45$.)

Question 2

- **B1** correct option B (£198) cao
- **Answer: B) £198** (10 % of £180 is £18, so $180 + 18 = £198$.)

Question 3

- **B1** correct option B (£92) cao
- **Answer: B) £92** (15 % of £80 is £12, so $80 + 12 = £92$.)

Question 4

- **B1** correct option A (£90) cao
- **Answer: A) £90** (Let original be x . After 30 % reduction price is $0.7x = 63$ so $x = 63/0.7 = £90$.)

Question 5

- **B1** correct option B (27) cao
- **Answer: B) 27** (12.5 % of 24 is 3, so $24 + 3 = 27$.)

Question 6

- **B1** correct option A (£30) cao
- **Answer: A) £30** (20 % of £25 is £5, so $total = 25 + 5 = £30$.)

Question 7

- **B1** correct option A (£65) cao
- **Answer: A) £65** (Let original be x . After 40 % discount you pay $0.6x = 39$ so $x = 39/0.6 = £65$.)

Question 8

- **B1** correct option C (They are equal) cao
- **Answer: C) They are equal** (25 % of £120 = £30; 20 % of £150 = £30.)

Question 9

- **M1** Correct method to find 8% of 22,500 seen (eg $22,500 \times 0.08 = 1,800$) or multiplication by 1.08
- **A1** £24,300 cao
- **Answer: £24,300**