



3.8F Percentage Change: Foundation Tier Practice

EDEXCEL Edexcel 1MA1 · Calculator allowed · about 50 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

1 Work out 10% of 230.

(Total for Question 1 is 1 mark)

2 Work out 25% of 160.

(Total for Question 2 is 1 mark)

3 Increase 150 by 20%.

(Total for Question 3 is 2 marks)

4 Decrease 80 by 15%.

(Total for Question 4 is 2 marks)

5 An item costs £60. It is reduced by 30% in a sale. Work out the sale price.

(Total for Question 5 is 2 marks)

- 6** A jacket cost £45 last month. This month it costs £54. Work out the percentage increase in price. Give your answer to the nearest whole percent if necessary.

(Total for Question 6 is 3 marks)

- 7** A pair of trainers is reduced by 20% and now costs £56. Work out the original price of the trainers.

(Total for Question 7 is 2 marks)

- 8** A book costs £200. First it is increased by 10%, then the new price is decreased by 10%. Work out the final price.

(Total for Question 8 is 3 marks)

- 9** The population of a small town is 1200. It falls by 5% one year and then rises by 10% the next year. Work out the population after these two changes. Give your answer to the nearest whole person.

(Total for Question 9 is 3 marks)

- 10** A shirt originally costs £30. It is reduced by 40% in a sale and the reduced price is then further reduced to £9 by a second sale. Work out the percentage reduction in the second sale. Give your answer as a percentage.

(Total for Question 10 is 3 marks)

Mark scheme · 3.8F Percentage Change: Foundation Tier Practice

Question 1

- **B1** 23 cao
- **Answer:** 23 pence/units (23 cao). **Note:** numeric answer 23 assumed as units of the quantity given in the question.

Question 2

- **B1** 40 cao
- **Answer:** 40

Question 3

- **M1** multiply 150 by 1.20 or show correct method to find 20% and add to 150
- **A1** 180 cao
- **Answer:** 180

Question 4

- **M1** find 15% of 80 or multiply 80 by 0.85
- **A1** 68 cao
- **Answer:** 68

Question 5

- **M1** calculate 30% of 60 or multiply by 0.70
- **A1** £42 cao
- **Answer:** £42

Question 6

- **M1** find change $54 - 45 = 9$
- **M1** express change as fraction of original $9/45$ and convert to percent
- **A1** 20% cao
- **Answer:** 20%

Question 7

- **M1** recognise original $= 56 \div 0.8$ or equivalent method
- **A1** £70 cao
- **Answer:** £70

Question 8

- **M1** first increase: $200 \times 1.10 = 220$ or show 10% of $200 = 20$ and add
- **M1** then decrease 10% of $220 = 22$ or multiply 220 by 0.90
- **A1** £198 cao
- **Answer:** £198

Question 9

- **M1** apply decrease: $1200 \times 0.95 = 1140$
- **M1** apply increase: $1140 \times 1.10 = 1254$
- **A1** 1254 people cao
- **Answer:** 1254 people

Question 10

- **M1** find price after first reduction: $30 \times 0.60 = 18$
- **M1** find fraction for second reduction: $(18 - 9) / 18$ or $9/18$
- **A1** 50% cao
- **Answer:** 50%