2.5-3 Percentages: Practice Set 3: 30-minute Pack

GL ASSESSMENT GL · Calculators not allowed · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A games console is reduced from £180 to £153. Find the percentage decrease.

(3)

2 The price of a cinema ticket rises from £6 to £7.50. Calculate the percentage increase.

(3)

3 Jamal scored 51 out of 60 in a spelling test. What percentage did he score?

(2)

4 A charity shop had 340 items of clothing in stock. On Saturday, 20% of the items were sold. On Sunday, a further 34 items were sold.

(a) How many items were sold on Saturday? **(1)**

.....

(b) How many items remain in stock after Sunday? **(2)**

.....

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5 After a price increase of 20%, a bicycle costs £108. Find the original price.

(3)

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6 Meera buys a set of headphones in a sale. They have been reduced by 30% and now cost £91. What was the original price of the headphones?

(3)

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7 Which decimal is equal to 8%?

- ☐ A) 0.008
- ☐ B) 0.08
- ☐ C) 0.8
- ☐ D) 8.0
- ☐ E) 80

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8 A shop increases the price of a rucksack by 20%. A month later, the increased price is reduced by 15% in a sale.

(a) The rucksack originally cost £45. Find the price after the 20% increase. **(1)**

(b) Find the price after the 15% decrease is applied to £54. **(2)**

(c) Is the final price the same as the original £45? State the difference. **(1)**

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9 Deepak invests £480 in a savings account that pays 5% simple interest per year. How much interest will he earn after 2 years?

(3)

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10 In a survey of 360 residents, 70% said they recycle regularly. Of these residents, 25% said they also compost food waste. How many residents both recycle regularly and compost food waste?

(3)

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11 Complete the following conversions between fractions, decimals and percentages.

(a) Write 9/25 as a percentage. **(1)**

(b) Write 0.28 as a fraction in its simplest form. **(1)**

(c) Write 6% as a decimal. **(1)**

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12 Find 10% of £560.

(1)

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Mark scheme · 2.5-3 Percentages: Practice Set 3: 30-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

decrease found (= 180 - 153 = 27)	**M1**
dep: their 27 / 180 oe seen	**M1**
15% cao	**A1**

Answer: 15%

Question 2

increase found (= 7.50 - 6 = 1.50)	**M1**
dep: their 1.50 / 6 oe seen	**M1**
25% cao	**A1**

Answer: 25%

Question 3

51/60 oe seen	**M1**
85% cao	**A1**

Answer: 85%

Question 4

(a) 68 cao	**B1**

(a) Answer: 68

(b) 340 - their 68 (= 272) found (ft from part a)	**M1**
(b) 238 cao (ft)	**A1**

(b) Answer: 238

Question 5

recognises 120% represents £108 (or finds 1% = 0.90)	**M1**
dep: finds 100% from their 1% or 120%	**M1**
£90 cao	**A1**

Answer: £90

Question 6

recognises 70% represents £91 (or finds 1% = 1.30)	**M1**
dep: finds 100% from their 1% or 70%	**M1**
£130 cao	**A1**

Answer: £130

Question 7

B) 0.08 cao	**B1**

Answer: 0.08

Question 8

(a) £54 cao	**B1**

(a) Answer: £54

(b) 15% of 54 found (= 8.10), e.g. via 10% + 5% (ft from part a)	**M1**
(b) £45.90 cao (ft)	**A1**

(b) Answer: £45.90

(c) No; £0.90 more than the original (ft from part b)	**B1**

(c) Answer: No; the final price (£45.90) is £0.90 more than the original £45.

Question 9

5% of 480 found (= 24)	**M1**
dep: their 24 x 2	**M1**
£48 cao	**A1**

Answer: £48

Question 10

70% of 360 found (= 252)	**M1**
dep: 25% of their 252 found	**M1**
63 cao	**A1**

Answer: 63

Question 11

(a) 36% cao	**B1**

(a) Answer: 36%

(b) 7/25 cao	**B1**

(b) Answer: 7/25

(c) 0.06 cao	**B1**

(c) Answer: 0.06

Question 12

£56 cao	**B1**

Answer: £56

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