**Homework Sheet – Percentages**

**1.** A watch has a full price of £32.99

 A shop advertises it for £28.99

 Work out the percentage reduction in price.

**2.**

**DVDs 4 U**

**SALE**

Price label more than £8 – take 15% off

Price label less than £8 – take 10% off

 **(a)** Ivy buys 5 DVDs with a price label of £6 each.

 Work out how much she pays in the sale.

 **(b)** Kurt buys 2 DVDs each with a price label of £4 and 7 DVDs each with a price label of £17.

 Work out how much he pays in the sale.

**3.** A survey finds that 85% of the people asked use the local bus.

 35.3% of those who use the bus use it at least once a week.

 240 people took part in the survey.

 **(a)** Work out how many people say they use the bus once a week.

 **(b)** What percentage of the people surveyed use the bus once a week?

**4.** Last year 80% of a car service bill was for labour. The rest was for parts.

 This year the labour costs increased by 9%.

 The cost for parts increased by 12%.

 Work out the percentage increase in the total car service bill for this year.

**5.** A garden centre buys plants to sell.

 It sells them at a profit of 28%.

 A rose bush is sold for £3.40

 Work out the price that the garden centre paid for the rose bush.

**6.** Jon buys £4000 of shares.

 In the first year the shares increase in value by 8%.

 In the next two years the shares decrease in value by 5% each year.

 Work out the value of the shares at the end of the three years.

**7.** A house loses 18% of its value. Its new value is £129 000.

 Work out the earlier value of the house.

 Give your answer to a suitable degree of accuracy.

**Percentages Answers and Mark Scheme**

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| **Q** | **Answer** | **Mark** | **Comments** |

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| --- | --- | --- | --- |
| **1** | (£) 32.99 – (£) 28.99 (= 4) | M1A1 |  |
|  x 100 | M1Dep |  |
| 12.12(...)(%) | A1 |  |
| **2(a)** |  x 6 x 5 (= 3) | M1 | o.e |
| 5 x 6 – their 3 | M1Dep |  x 6 x 5 is M2 |
| 27 | A1 |  |
| **2(b)** |  x 4 x 2 (= 0.8) | M1 | o.e  x 4 x 2 |
|  x 17 x 7 (= 17.85) | M1 | o.e  x 17 x 7  |
| 4 x 2 + 17 x 7 – (their 0.8 + their 17.85) | M1Dep | Their 7.2 + their 101.15 |
| £108.35 | A1 |  |
| **3(a)** | 0.353 x 0.85 x 240 | M1 | o.e |
| 72.012 | A1 |  |
| 72 (people) | B1ft | Follow through decimal rounded |
| **3(b)** |  x 100 | M1 |  |
| 30% | A1 |  |
| **4** | 1.09 and 1.12 seen | B1 |  |
| 1.09 x 80 (= 87.2)  | M1 | o.e |
| 1.12 x 20 (= 22.4) | M1 | o.e |
| Their 87.2 + their 22.4 (= 109.6) | M1Dep | 1.09 x 80 + 1.12 x 20 (= 109.6)is M3 |
| Their 109.6 – 100 | M1Dep |  |
| 9.6% | A1 |  |

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| **Q** | **Answer** | **Mark** | **Comments** |

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| **5** | 128% = £3.40 | B1 |  |
| 3.4(0) ÷ 1.28 | M1 | o.e |
| £2.66 | A1 |  |
| **6** | 1.08 and 0.95 seen | B1 |  |
| 4000 x 1.08 x 0.95 x 0.95 | M1 | o.e |
| £3898.80 | A1 | 3898.8 scores B1M1A0 |
| **7** | 129 000 = 82% | B1 |  |
| 129 000 ÷ 0.82 | M1 | . |
| 157 317(...) | A1 |  |
| £157 000 or 160 000 | B1 ft | Answer rounded to 2s.f or 3s.f |