

## 6.2 Answers

### GCSE (Year 10) Mathematics Percentages II

#### Answer 1

- ( i )     £2.40     <== must have £ sign and the zero
- ( ii )     59.8 kg
- ( iii )     1392 apples
- ( iv )     30 %

[ 8 marks ]

#### Answer 2

11 556 steps

[ 3 marks ]

#### Answer 3

$$\frac{17410742}{17410742 + 16141241} \times 100 = 51.89 \%$$

[ 3 marks ]

#### Answer 4

A 100% improvement would be a score of 40%  
so Sara's score of 60% is a 200% improvement.

[ 3 marks ]

#### Answer 5

20% is £4.20     $\Leftrightarrow$     100% is £21.00

The meal cost £21 + £4.20 = £25.20

[ 3 marks ]

#### Answer 6

$$\frac{2.78 - 2.47}{2.47} \times 100 = 12.55 \%$$

[ 3 marks ]

#### Answer 7

$$\frac{110}{330} \times 100 = 33\frac{1}{3} \% \text{ extra free}$$

[ 3 marks ]

#### Answer 8

$$\frac{20031 - 17901}{20031} \times 100 = 10.6 \%$$

[ 3 marks ]

#### Answer 9

Let x be the price before the reduction

$$x \times (1 - 0.28) = 4320$$

$$x = \frac{4320}{0.72}$$

$$= £6000$$

[ 3 marks ]

**Answer 10**

$$\frac{\sqrt{10} - \pi}{\pi} \times 100 = 0.658 \%$$

**[ 3 marks ]****Answer 11**

$$170000 \times 0.92^3 = \$ 132\,377$$

**[ 3 marks ]****Answer 12**

$$(a) \quad \frac{1236.50 - 1126.50}{1126.50} \times 100 = 9.76\%$$

**[ 3 marks ]**

$$(b) \quad 1126.50 \times 1.19 = \$ 1340.54$$

**[ 3 marks ]****Answer 13**

$$(a) \quad \frac{163}{683} \times 100 = 23.9 \%$$

**[ 2 marks ]**

$$(b) \quad 1028 \times 1.176 = 1209 \text{ million}$$

**[ 3 marks ]**

$$(c) \quad \text{Let } x \text{ be the population in 1971}$$

$$x \times 1.876 = 1028$$

$$x = \frac{1028}{1.876}$$

$$= 548 \text{ million}$$

**[ 3 marks ]**