Test answers - Decimals and percentages

Year: Year 6 · Duration: 40 minutes · /20

Answer to Question 1 (3 marks)

a. After the point come tenths (5), hundredths (7) and thousandths (2). The 7 is worth **0.07**. (1 mark)
b. Keep two decimal places and look at the third, 3: it is less than 5, so round down to **8.46**. (1 mark)
c. Write each with three decimal places: 0.380, 0.308, 0.830, 0.800. In order: **0.308, 0.38, 0.8, 0.83**. (1 mark)

Answer to Question 2 (4 marks)

a. Multiplying by 100 moves the digits two places left: **64**. (1 mark)
b. Ignore the point: 73 × 6 = 438. There is one decimal place in 7.3, so the answer is **43.8**. (1 mark)
c. 189 ÷ 7 = 27, and 18.9 has one decimal place, so **2.7**. Check: 2.7 × 7 = 18.9. (1 mark)
d. 12 × 2.5 = 12 × 2 + 12 × 0.5 = 24 + 6 = **30 kg**. (1 mark)

Answer to Question 3 (4 marks)

a. Multiply top and bottom by 5: $\frac{45}{100}$, which is **0.45 and 45%**. (1 mark)
b. 0.35 = $\frac{35}{100}$; divide top and bottom by 5 to get $\frac{7}{20}$. (1 mark)
c. Divide the percentage by 100: 62.5 ÷ 100 = **0.625**. (1 mark)
d. $\frac{3}{5}$ = $\frac{60}{100}$ = 60%, and 60% > 58%, so $\frac{3}{5}$ **is bigger**. (1 mark)

Answer to Question 4 (4 marks)

a. 10% is one tenth: £360 ÷ 10 = **£36**. (1 mark)
b. Build 35% from easy parts: 10% = £8, so 30% = £24, and 5% = £4. Total **£28**. (1 mark)
c. 25% is a quarter: £64 ÷ 4 = £16 off. Sale price: £64 − £16 = **£48**. (1 mark)
d. 18 out of 24 = $\frac{18}{24}$ = $\frac{3}{4}$ = **75%**. (1 mark)

Answer to Question 5 (5 marks)

a. 32 × £18.50 = 32 × £18 + 32 × £0.50 = £576 + £16 = **£592**. (1 mark)

b. 10% of £592 is £59.20, so 20% is 2 × £59.20 = **£118.40**. (1 mark)
c. The pupils share £592 − £118.40 = £473.60; £473.60 ÷ 32 = **£14.80** each (80% of £18.50). (2 marks)
d. 32 × £4.75 = 32 × £5 − 32 × £0.25 = £160 − £8 = **£152**. (1 mark)