Test answers - Formal written multiplication and division

Year: Year 5 · Duration: 40 minutes · /20

Answer to Question 1 (4 marks)

(a) Multiplying by 100 moves the digits two places left: **6,300**. (1 mark)

(b) Dividing by 100 moves them two places right: **49**. (1 mark)

(c) Multiplying by 1,000 moves the digits three places left: **805,000**. (1 mark)

(d) Dividing by 10 moves them one place right: **7,200**. (1 mark)

Answer to Question 2 (4 marks)

(a) 2,816 × 7 = **19,712**. (1 mark)

(b) 45 × 6 = 270 and 45 × 30 = 1,350. Add: 270 + 1,350 = **1,620**. (2 marks)

(c) Estimate 60 × 30 = 1,800. Exact: 62 × 29 = 1,798. (1 mark)

Answer to Question 3 (4 marks)

(a) Short division: 18 ÷ 6 = 3, 4 ÷ 6 = 0 remainder 4, 48 ÷ 6 = 8. Answer **308**; check 308 × 6 = 1,848. (1 mark)

(b) 7 × 142 = 994 and 1,000 − 994 = 6, which is less than 7. Answer: **142 remainder 6**. (2 marks)

(c) 142 boxes hold 994 pencils, and the 6 left over still need a box. So the remainder means rounding up: **143 boxes**. (1 mark)

Answer to Question 4 (3 marks)

(a) 400 × 20 = 8,000. Lee's answer is too big. (1 mark)

(b) 378 × 4 = 1,512 and 378 × 20 = 7,560. Add: **9,072**. (1 mark)

(c) 9,972 − 9,072 = 900, so Lee may have made an error when adding the carried hundreds in one of the columns. (1 mark)

Answer to Question 5 (5 marks)

(a) 15 × 12 = **180 chairs**. (1 mark)

(b) 168 × 4 = **£672**. (1 mark)

(c) 168 ÷ 25 = 6 remainder 18, so **6 full books** and the last book (the 7th) has 18 tickets in it. (2 marks)

(d) 100 ÷ 2 = 50 packs, and 50 × 5 = **250 sandwiches**. (1 mark)