Test answers - Times tables to 12 x 12

Year: Year 4 · Duration: 35 minutes · /20

Answer to Question 1 (4 marks)

a. 7 × 6: use 7 × 5 = 35 and add one more 7: 35 + 7 = **42** (1 mark).
b. 9 × 8: use 10 × 8 = 80 and take away one 8: 80 − 8 = **72** (1 mark).
c. 11 × 12: 11 × 10 = 110 and 11 × 2 = 22, so 110 + 22 = **132** (1 mark).
d. 84 ÷ 12: which number times 12 is 84? 12 × 7 = 84, so the answer is **7** (1 mark).

Answer to Question 2 (4 marks)

a. Multiplication works in either order, so the two facts are **8 × 9 = 72** and **9 × 8 = 72** (2 marks: 1 for each fact).
b. Division undoes multiplication. Start with the product 72 and divide by either factor: **72 ÷ 8 = 9** and **72 ÷ 9 = 8** (2 marks: 1 for each fact). 8 ÷ 72 is not part of this fact family.

Answer to Question 3 (4 marks)

a. Which number times 8 makes 96? Use the inverse: 96 ÷ 8 = **12**. Check: 12 × 8 = 96 (1 mark).
b. 7 times which number is 63? 63 ÷ 7 = **9**, because 7 × 9 = 63 (1 mark).
c. The missing number divided by 9 gives 7, so it is 7 × 9 = **63**. Check: 63 ÷ 9 = 7 (1 mark).
d. Test each number from 1 up: 1 × 20, 2 × 10, 4 × 5. 3 does not divide 20 exactly. The factor pairs are **1 × 20, 2 × 10 and 4 × 5** (1 mark).

Answer to Question 4 (4 marks)

a. Multiply 5 × 2 first, because it makes 10: 5 × 2 = 10, then 10 × 8 = **80**. Changing the order does not change the product (2 marks: 1 for the clever order, 1 for 80).
b. Multiply 3 × 4 first: 3 × 4 = 12, then 12 × 7 = **84**. Checking another way, 3 × 7 = 21 and 21 × 4 = 84 (2 marks: 1 for the order, 1 for 84).

Answer to Question 5 (4 marks)

a. 12 × 6 = **72 doughnuts** (1 mark).
b. 12 × £5 = **£60** (1 mark).
c. She has 72 doughnuts, which is not enough for 90 children: she is **18 doughnuts**

short, none are left over (1 mark).

d. 180 doughnuts are needed; 180 − 72 = 108 more doughnuts, and 108 ÷ 6 = **18 more boxes** (1 mark).