

Max's Magnificent Multiplication Challenge

Learning objective: To recall and use multiplication and division facts for the 3, 4, 6, 7, 8, 9, 11, and 12 multiplication tables.

Max the monkey is busy organising his jungle store! Help him calculate his stock by solving these multiplication puzzles. Write your answers clearly and show your working out where needed.

Answer Key: 1) 32 (B), 2) 72 (C), 3) False ($6 \times 8 = 48$), 4) 9, 5) 121 (A), 6) 48 (D), 7) True, 8) 144, 9) 6, 10) 84. Extension: 1) $9 \times 8 = 72$; $8 \times 9 = 72$. Multiplication is commutative. 2) 12×12 is 144; 12×13 is 156. 3) Justify: $8 \times 6 = 48$, so $48 \div 6 = 8$. They are inverse operations. 4) If the price was £12, $12 \times 12 = £144$. 5) Compare 7×8 and 8×7 : They have the same product. 6) Creative: Design a 'multiplication garden' where rows of flowers represent times tables.

Word bank: Product · Multiple · Array · Equation · Factor

1. Max has 8 bunches of bananas with 4 in each. How many bananas does he have? A) 24 B) 32* C) 36 D) 28 (1 mark)

2. What is the product of 9 and 8? A) 70 B) 84 C) 72* D) 81 (1 mark)

3. True or False: $6 \times 9 = 52$. (1 mark)

4. If $81 \div 9 = ?$, what is the missing number? (1 mark)

5. What is 11×11 ? A) 121* B) 111 C) 131 D) 122 (1 mark)

6. Max sells mangoes for £6 each. If he sells 8, how much money does he make? A) £42 B) £54 C) £46 D) £48* (1 mark)

7. True or False: 12×5 is the same as 10×6 . (1 mark)

8. What is 12 squared (12×12)? (1 mark)

9. If $7 \times ? = 42$, what is the missing number? (1 mark)

10. What is 7×12 ? (1 mark)

Draw: Draw an array of 6 rows of 8 shiny red apples to show how Max organizes his fruit stall.



Extension challenge: 1. Explain why 9×8 gives the same result as 8×9 . What is this mathematical rule called? 2. If Max has 12 boxes with 12 oranges in each, how many oranges does he have? What would happen if he added one more box? 3. Justify why $48 \div 6 = 8$ is the inverse of $6 \times 8 = 48$. 4. If a bunch of exotic fruit costs £12 and Max buys 12 bunches, calculate the total cost in £. 5. Compare the product of 7×8 and 8×7 . What do you notice? 6. Design a 'multiplication garden' where rows of flowers represent different times tables; label how many flowers are in each row.