

Max's Mathematical Multiplication Marathon

Learning objective: To multiply numbers up to 4 digits by a one-digit or two-digit number using a formal written layout, including long multiplication.

Join Max the monkey as he tackles his jungle maths puzzles! Answer the following 10 questions to test your multiplication skills. Show your working out clearly.

Answer Key: 1) B (4,860), 2) True, 3) 1,368, 4) C (2,352), 5) False ($15 \times 24 = 360$), 6) 6,370, 7) A (48,000), 8) True, 9) 3,750, 10) C (The number of digits increases).

Word bank: Product · Multiplier · Multiplicand · Place holder · Calculation · Formal written method · Regrouping · Estimate

1. Max has 15 boxes of bananas. Each box contains 324 bananas. What is the product? A) 4,800 B) 4,860* C) 4,960 D) 4,760 (1 mark)

2. True or False: When multiplying by a two-digit number, you must place a zero as a place holder in the ones column before multiplying by the tens digit. (1 mark)

3. Calculate the following: $72 \times 19 =$ (1 mark)

4. Which calculation results in 2,352? A) 48×40 B) 42×50 C) 48×49 * D) 42×59 (1 mark)

5. True or False: The product of 15 and 24 is 460. (1 mark)

6. A farmer sells 91 bags of apples. Each bag costs £70. What is the total value of the apples? (1 mark)

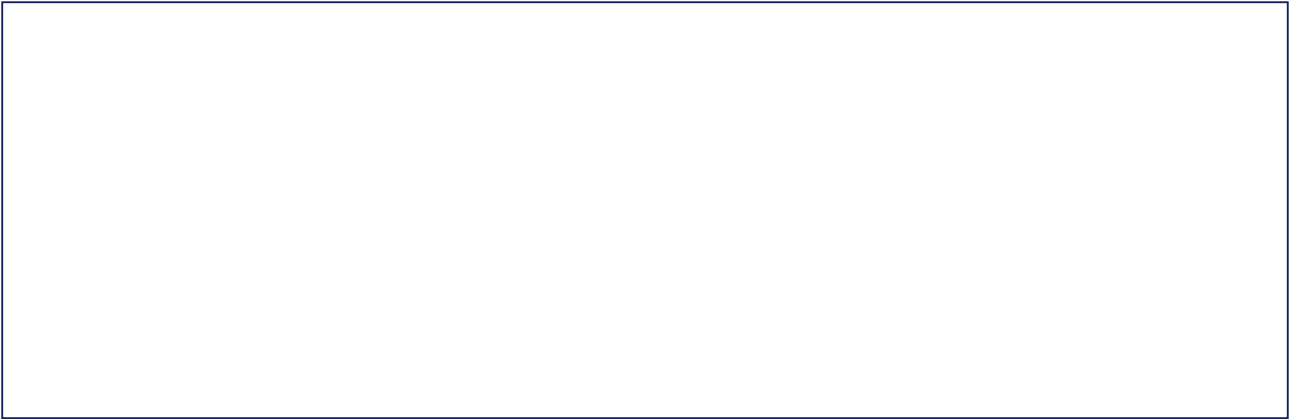
7. Estimate the product of 798×60 by rounding to the nearest thousand. A) 48,000* B) 42,000 C) 54,000 D) 40,000 (1 mark)

8. True or False: Multiplication is commutative, meaning 12×5 is the same as 5×12 . (1 mark)

9. Solve: $125 \times 30 =$ (1 mark)

10. When multiplying a 3-digit number by a 2-digit number, which is most likely to be true?
A) The answer is always even. B) The answer is always less than 1,000. C) The answer can have 4 or 5 digits.* D) The answer is always a multiple of 10. (1 mark)

Draw: Draw Max the monkey sitting in a tree, surrounded by crates of fruit labelled with multiplication sums like ' 24×12 ' and ' 15×6 '.



Extension challenge: Greater Depth Challenge: 1) Explain why we use a zero as a place holder during long multiplication. 2) Compare and contrast multiplying by 10 and multiplying by 100. 3) Justify your answer: Is it more efficient to use the formal written method for 100×45 or mental arithmetic? Why? 4) What might happen if you forget to regroup when multiplying 456×7 ? 5) Create your own 3-digit by 2-digit multiplication word problem for a friend to solve. 6) If a product is 1,200, suggest three different pairs of factors that could result in this total.