

Max's Magnificent Math Division Challenge

Learning objective: To recall and use division facts for the 3, 4, 6, 8, 11 and 12 multiplication tables and solve problems involving division with remainders.

Help Max the monkey solve these division puzzles. Use your knowledge of times tables to work through the questions. Remember to show your working out if you have a remainder!

Answer Key: 1. B (8), 2. False, 3. 7, 4. 6, 5. C (9 r 2), 6. True, 7. 12, 8. 4, 9. 11, 10. 5. Reasoning for Q5: 56 divided by 6 is 9 with 2 left over. For Q8: £48 / 8 = £6, so 4 is incorrect; it should be 6.

Word bank: Quotient · Remainder · Dividend · Divisor · Partition · Inverse

1. Max has 72 bananas to share equally among 9 monkeys. How many bananas does each monkey get? A) 6 B) 8* C) 9 D) 7 (1 mark)

2. True or False: When you divide a number by 1, the answer is always 0. (1 mark)

3. What is the quotient of $63 \div 9$? (1 mark)

4. If you share 48 pencils between 8 pots, how many pencils go in each pot? (1 mark)

5. Calculate $56 \div 6$. A) 8 r 4 B) 9 r 1 C) 9 r 2* D) 10 r 0 (1 mark)

6. True or False: Division is the inverse operation of multiplication. (1 mark)

7. A farmer has 144 eggs. If he puts them into boxes of 12, how many boxes will he fill? (1 mark)

8. Max buys 8 stickers for £48. How much does one sticker cost? A) £4 B) £7 C) £5 D) £6 (Note: Circle the correct option). (1 mark)

9. What is $121 \div 11$? (1 mark)

10. If you have 35 sweets and share them equally between 7 friends, how many does each friend receive? (1 mark)

Draw: Draw Max the monkey sharing a pile of 24 mangoes into 4 equal baskets. Label the baskets and show how many mangoes are in each one.



Extension challenge: 1. Explain why calculating $84 \div 4$ is easier if you partition 84 into 80 and 4. 2. Compare and contrast dividing by 4 and dividing by 8. What do you notice about the relationship between the divisors? 3. Justify your answer: Is it possible to have a remainder of 7 when dividing by 6? Why or why not? 4. What might happen if you had 50 sweets and 8 friends; how many sweets would be left over? 5. Create your own word problem involving division and a remainder of 3. 6. If a number is divisible by both 2 and 3, what else must it be divisible by? Prove your answer.