

Max's Ratio and Proportion Challenge

Learning objective: To solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.

Help Max the monkey solve these ratio puzzles! Read each question carefully and circle the correct answer or write your answer in the space provided.

Answer Key: 1. B (1:3), 2. False, 3. 15, 4. 1:4, 5. C (8), 6. True, 7. 1:2, 8. 12, 9. B (3:2), 10. 20. Max's top tip: Always simplify your ratios by finding the highest common factor!

Word bank: ratio · proportion · scale · quantity · equivalent · simplest form

1. 1. Max has 2 red apples and 6 green apples. What is the ratio of red to green apples in its simplest form? A) 2:6 B) 1:3* C) 3:1 D) 1:2 (1 mark)

2. 2. True or False: If the ratio of boys to girls in a class is 2:3, this means there are exactly 2 boys and 3 girls in the class. (1 mark)

3. 3. A recipe uses a ratio of 2 cups of flour to 3 cups of sugar. If you use 10 cups of flour, how many cups of sugar do you need? (Write your answer as a number) (1 mark)

4. 4. Simplify the ratio 5:20 to its simplest form. (1 mark)

5. 5. A shop sells packs of stickers. The ratio of gold stars to silver stars is 3:1. If there are 3 silver stars, how many gold stars are there? A) 3 B) 6 C) 9* D) 12 (1 mark)

6. 6. True or False: 4:6 is an equivalent ratio to 2:3. (1 mark)

7. 7. In a fruit bowl, the ratio of bananas to oranges is 4:8. What is this ratio in its simplest form? (1 mark)

8. 8. Max buys 3 pens for £6. How much would 6 pens cost at the same proportion? (Write your answer as a number) (1 mark)

9. 9. If the ratio of blue beads to red beads is 6:4, which is the equivalent simplified ratio? A) 2:3 B) 3:2* C) 4:6 D) 1:2 (1 mark)

10. 10. If 5 notebooks cost £10, how much would 10 notebooks cost? (Write your answer as a number) (1 mark)

Draw: Draw a picture showing a collection of 3 blue marbles and 9 red marbles to demonstrate the ratio 1:3.



Extension challenge: Max has a collection of 20 coins. The ratio of copper coins to silver coins is 3:2. Calculate exactly how many copper coins and how many silver coins Max has.