

Max's Fraction Fact-File: Mastering Equivalent Parts

Learning objective: To identify, name and write equivalent fractions of a given fraction, represented visually and numerically, and to compare and order fractions whose denominators are all multiples of the same number.

Max the monkey has been busy gathering fruit for the jungle feast! Use this fact-file to help Max sort his fractions. You will need to calculate equivalent values, simplify fractions where possible, and justify your mathematical reasoning. Write neatly and remember to show your working out for the calculations.

Word bank: numerator · denominator · equivalent · simplify · multiple · fraction · proper · improper

1. Max has 12 pieces of fruit. If 4 are mangoes, write this as a fraction. Now, simplify this fraction to its lowest terms. Show your steps. (3 marks)

2. Find two equivalent fractions for $\frac{3}{5}$. Explain how you calculated these using the numerator and denominator. (3 marks)

3. Compare $\frac{2}{3}$ and $\frac{5}{6}$. Which is larger? Justify your answer by finding a common denominator. (3 marks)

4. If Max eats $\frac{1}{4}$ of his 20 bananas, how many does he have left? Express the remaining amount as a fraction of the original total. (3 marks)

5. Explain why $\frac{4}{8}$ is equivalent to $\frac{1}{2}$. What happens if you multiply the numerator and denominator of $\frac{1}{2}$ by the same number? (2 marks)

6. What might happen to the size of a fraction if the denominator increases but the numerator stays the same? Provide an example. (3 marks)

Extension challenge: Design a 'Fraction Feast' menu for Max. Create three dishes where the ingredients are measured in fractions (e.g., $\frac{3}{4}$ of a kg of nuts). Then, calculate the total weight if you were to double the recipe for all the animals in the jungle.