Test answers - Fractions: unit and non-unit

Year: Year 3 · Duration: 30 minutes · /20

Answer to Question 1 (4 marks)

a. A unit fraction has 1 as its numerator. $\frac{1}{8}$ and $\frac{1}{5}$ both have numerator 1, so they are the unit fractions. (2 marks: 1 for each)
b. The other two have numerators bigger than 1: $\frac{3}{10}$ and $\frac{5}{6}$ are the non-unit fractions. (1 mark)
c. Counting in tenths: 1 tenth, 2 tenths, **3 tenths**. So $\frac{3}{10}$ is three lots of $\frac{1}{10}$. (1 mark)

Answer to Question 2 (4 marks)

a. To find a fifth, divide by 5: 40 ÷ 5 = **8**, because 5 × 8 = 40. (1 mark)
b. First find one quarter: 28 ÷ 4 = 7. Then three quarters is 3 × 7 = **21**. (1 mark)
c. First find one tenth: 50 ÷ 10 = 5. Seven tenths is 7 × 5 = **35**. (2 marks: 1 for the tenth, 1 for 35)

Answer to Question 3 (4 marks)

a. Add the numerators and keep the ninths: 2 + 4 = 6, so the answer is $\frac{6}{9}$. (1 mark)
b. Subtract the numerators: 8 − 3 = 5. The answer is $\frac{5}{10}$, which is also one half. (1 mark)
c. 5 + 7 = 12, so the sum is $\frac{12}{12}$, which is **1 whole**. (1 mark)
d. Zoe and Dan eat 3 + 4 = 7 of the 10 pieces. 10 − 7 = 3 are left, which is $\frac{3}{10}$ of the bar. (1 mark)

Answer to Question 4 (4 marks)

a. $\frac{1}{2}$ of 40 is 40 ÷ 2 = **20** beginners. (1 mark)
b. $\frac{1}{4}$ of 40 is 40 ÷ 4 = **10** improvers. (1 mark)
c. The rest are advanced: 40 − 20 − 10 = **10** children. (1 mark)
d. 10 out of 40 is $\frac{10}{40}$. Dividing the top and the bottom by 10 gives $\frac{1}{4}$ of the club. (1 mark)

Answer to Question 5 (4 marks)

a. First find one fifth: 60 ÷ 5 = 12. Three fifths is 3 × 12 = **36** oranges. (2 marks: 1 for 12, 1 for 36)
b. $\frac{1}{10}$ of 60 is 60 ÷ 10 = **6** oranges. (1 mark)
c. Take away both sales: 60 − 36 = 24, then 24 − 6 = **18** oranges left. (1 mark)