Test answers - Fractions: equivalent, mixed numbers and improper

Year: Year 5 · Duration: 40 minutes · /20

Answer to Question 1 (4 marks)

(a) $6 \times 4 = 24$, so $5 \times 4 =$ **20**. (1 mark)

(b) Divide by 6: $\frac{3}{5}$. (1 mark)

(c) For example $\frac{4}{10}$, $\frac{6}{15}$, $\frac{8}{20}$. (1 mark)

(d) $\frac{3}{4} = \frac{12}{16}$, which is not $\frac{9}{16}$, so **no**. (1 mark)

Answer to Question 2 (4 marks)

(a) $23 \div 5 = 4$ remainder 3, so $4\frac{3}{5}$. (1 mark)

(b) $4 \times 3 + 2 = 14$, so $\frac{14}{3}$. (1 mark)

(c) $15 \div 4 = 3$ remainder 3, so $3\frac{3}{4}$. (1 mark)

(d) $2 \times 8 + 5 = 21$, so $\frac{21}{8}$. (1 mark)

Answer to Question 3 (4 marks)

(a) Change to eighths: $\frac{3}{4} = \frac{6}{8}$. 5 eighths is less than 6 eighths, so $\frac{5}{8} < \frac{3}{4}$. (1 mark)

(b) Use twelfths: $\frac{2}{3} = \frac{8}{12}$ and $\frac{5}{6} = \frac{10}{12}$. Comparing 7, 8 and 10 twelfths gives $\frac{7}{12}$, $\frac{2}{3}$, $\frac{5}{6}$. (2 marks)

(c) Use sixths: $2\frac{1}{2} = \frac{15}{6}$ and $\frac{7}{3} = \frac{14}{6}$. Since 15 > 14, $2\frac{1}{2}$ is bigger. (1 mark)

Answer to Question 4 (3 marks)

(a) 5 halves make 2 wholes (4 halves) and 1 half left over: $2\frac{1}{2}$. (1 mark)

(b) $11 \div 4 = 2$ remainder 3, so $\frac{11}{4} = 2\frac{3}{4}$. It lies **between 2 and 3**. (1 mark)

(c) Any number bigger than one and a half but smaller than 2 works, for example $1\frac{3}{4}$ (which is $\frac{7}{4}$). (1 mark)

Answer to Question 5 (5 marks)

(a) $13 \div 8 = 1$ remainder 5, so $1\frac{5}{8}$. (1 mark)

(b) Zoe $\frac{13}{8}$; Omar $\frac{7}{4} = \frac{14}{8}$; Pia $1\frac{1}{2} = \frac{12}{8}$. Total: 13 + 14 + 12 = 39 eighths = $\frac{39}{8}$. (2 marks)

(c) 6 sandwiches = $\frac{48}{8}$. Sam eats 48 − 39 = 9 eighths = $1\frac{1}{8}$ sandwiches. (1 mark)

(d) Omar eats $\frac{14}{8}$, the most, so **Omar**. (1 mark)