

Year 6 Fractions — Developing Answer Key

Answers and worked solutions | Level 2: Developing

A. Understanding Fractions

1. $2\frac{3}{4}$

$11 \div 4 = 2$ remainder 3.

2. $\frac{13}{5}$

$2 \times 5 + 3 = 13$.

3. $\frac{5}{12}$

$12 - 7 = 5$ pieces remain.

B. Equivalent Fractions

4. 20

$6 \times 4 = 24$, so $5 \times 4 = 20$.

5. 28

$3 \times 7 = 21$, so $4 \times 7 = 28$.

6. Yes

$$\frac{8}{12} = \frac{2}{3} \text{ and } \frac{10}{15} = \frac{2}{3}.$$

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C. Simplifying Fractions

7. $\frac{3}{4}$

Divide 18 and 24 by 6.

8. $\frac{3}{5}$

Divide 21 and 35 by 7.

9. $\frac{2}{5}$

Total = 30; $\frac{12}{30} = \frac{2}{5}$.

D. Fractions of Amounts

10. 24

$$64 \div 8 \times 3 = 24.$$

11. 27 balloons

$$\text{Blue} = 45 \div 5 \times 2 = 18; \text{not blue} = 45 - 18 = 27.$$

12. 32 pages

$$\text{Read} = 72 \div 9 \times 5 = 40; \text{remaining} = 72 - 40 = 32.$$

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E. Adding and Subtracting Fractions

13. $\frac{7}{8}$

$$\frac{3}{4} = \frac{6}{8}; \frac{6}{8} + \frac{1}{8} = \frac{7}{8}.$$

14. $\frac{1}{2}$

$$\frac{1}{3} = \frac{2}{6}; \frac{5}{6} - \frac{2}{6} = \frac{3}{6} = \frac{1}{2}.$$

15. $\frac{7}{10}$ km

$$\frac{2}{5} = \frac{4}{10}; \frac{4}{10} + \frac{3}{10} = \frac{7}{10}.$$

F. Multiplying Fractions by Whole Numbers

16. $1\frac{1}{2}$

$$\frac{3}{8} \times 4 = \frac{12}{8} = 1\frac{1}{2}.$$

17. $2\frac{1}{2}$

$$\frac{5}{6} \times 3 = \frac{15}{6} = 2\frac{1}{2}.$$

18. $4\frac{1}{2}$ litres

$$\frac{3}{4} \times 6 = \frac{18}{4} = 4\frac{1}{2}.$$

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G. Dividing Fractions by Whole Numbers

19. $\frac{1}{6}$

$$\frac{5}{6} \div 5 = \frac{5}{30} = \frac{1}{6}.$$

20. $\frac{1}{8}$

$$\frac{3}{4} \div 6 = \frac{3}{24} = \frac{1}{8}.$$

21. $\frac{1}{6}$ kg

$$\frac{2}{3} \div 4 = \frac{2}{12} = \frac{1}{6}.$$

H. Comparing and Ordering Fractions

22. $\frac{5}{8} < \frac{2}{3}$

$$\frac{5}{8} = \frac{15}{24} \text{ and } \frac{2}{3} = \frac{16}{24}.$$

23. $\frac{7}{12}, \frac{5}{8}, \frac{3}{4}$

Common denominator 24: $\frac{14}{24}, \frac{15}{24}, \frac{18}{24}.$

24. $\frac{4}{5}$

$$\frac{4}{5} = \frac{36}{45}; \frac{7}{9} = \frac{35}{45}; \frac{36}{45} \text{ is greater.}$$