

SKE Primary: Foundation Strand**Answers to Exercises****Unit 9 Fractions: Calculations****9.1 Addition and Subtraction of Fractions**

1. (a) $\frac{4}{7}$ (b) $\frac{4}{8} = \frac{1}{2}$ (c) $\frac{8}{9}$ (d) $\frac{10}{10} = 1$ (e) $\frac{4}{5}$
 (f) $\frac{6}{7}$ (g) $\frac{4}{4} = 1$ (h) $\frac{2}{8} = \frac{1}{4}$ (i) $\frac{2}{9}$ (j) $\frac{2}{10} = \frac{1}{5}$
 (k) $\frac{5}{11}$ (l) $\frac{2}{15}$ (m) $\frac{3}{13}$ (n) $\frac{1}{7}$ (o) $\frac{4}{25}$
2. (a) $\frac{5}{10} + \frac{2}{10} = \frac{7}{10}$ (b) $\frac{12}{15} + \frac{10}{15} = \frac{22}{15}$ (c) $\frac{5}{30} + \frac{24}{30} = \frac{29}{30}$
 (d) $\frac{12}{21} - \frac{7}{21} = \frac{5}{21}$ (e) $\frac{5}{6} - \frac{4}{6} = \frac{1}{6}$
3. (a) $\frac{5}{6}$ (b) $\frac{17}{12}$ (c) $\frac{9}{20}$ (d) $\frac{19}{15}$ (e) $\frac{7}{8}$
 (f) $\frac{3}{6} = \frac{1}{2}$ (g) $\frac{38}{35}$ (h) $\frac{17}{21}$ (i) $\frac{6}{10} = \frac{3}{5}$ (j) $\frac{32}{21}$
 (k) $\frac{4}{12} = \frac{1}{3}$ (l) $\frac{1}{8}$ (m) $\frac{5}{36}$ (n) $\frac{2}{21}$ (o) $\frac{1}{20}$
4. (a) $\frac{8}{12} = \frac{2}{3}$ (b) 8
5. (a) $\frac{27}{20}$ ha (b) $\frac{13}{20}$ ha
6. (a) $\frac{11}{15}$ (b) $\frac{4}{15}$ (c) $\frac{3}{10}$
7. (a) $\frac{1}{10}$ (b) $\frac{7}{30}$
8. (a) $2\frac{5}{6} = \frac{17}{6}$ (b) $4\frac{1}{4}$ or $\frac{17}{4}$ (c) $7\frac{9}{10}$ or $\frac{79}{10}$
 (d) $2\frac{53}{56}$ or $\frac{109}{56}$ (e) $\frac{5}{6}$ (f) $\frac{33}{20}$ or $1\frac{13}{20}$ (g) $\frac{7}{8}$
 (h) $\frac{164}{21}$ or $7\frac{17}{21}$ (i) $\frac{69}{40}$ or $1\frac{29}{40}$ (j) $\frac{97}{20}$ or $4\frac{17}{20}$ (k) $\frac{7}{4}$ or $1\frac{3}{4}$
 (l) $\frac{11}{4}$ or $2\frac{3}{4}$
9. £ $\frac{19}{60}$ million
10. $\frac{89}{40}$ or $2\frac{9}{40}$

Answers to Exercises

9.2 Multiplying Fractions

1. (a) 3 (b) 4 (c) 14 (d) 6 (e) 21 (f) 24
(g) 15 (h) 15 (i) 10 (j) 44 (k) 8 (l) 15
2. (a) $\frac{1}{6}$ (b) $\frac{1}{4}$ (c) $\frac{1}{12}$ (d) $\frac{1}{2}$ (e) $\frac{12}{35}$ (f) $\frac{9}{32}$
(g) $\frac{8}{63}$ (h) $\frac{9}{28}$ (i) $\frac{25}{42}$ (j) $\frac{9}{70}$ (k) $\frac{3}{38}$ (l) $\frac{8}{33}$
3. (a) $\frac{9}{8}$ (b) 3 (c) $\frac{7}{10}$ (d) $\frac{5}{7}$ (e) $\frac{17}{20}$ (f) $\frac{22}{21}$
(g) $\frac{27}{10}$ or $2\frac{7}{10}$ (h) $\frac{9}{4}$ or $2\frac{1}{4}$ (i) 2 (j) $\frac{25}{8}$ or $3\frac{1}{8}$
(k) $\frac{91}{12}$ or $7\frac{7}{12}$ (l) $\frac{11}{4}$
4. (a) $\frac{3}{4} \text{ m}^2$ (b) $\frac{5}{2} \text{ m}^2$ or $2\frac{1}{2} \text{ m}^2$
5. (a) $1\frac{1}{2} \text{ kg}$ (b) $4\frac{1}{2} \text{ kg}$ (c) $7\frac{1}{2} \text{ kg}$
6. (a) $\frac{1}{2} \text{ kg}$ (b) $\frac{1}{4} \text{ kg}$
7. (a) £ $\frac{3}{20}$ million (b) £ $\frac{9}{20}$ million
8. (a) $\frac{15}{8} \text{ m}^2$ or $1\frac{7}{8} \text{ m}^2$ (b) $\frac{45}{16} \text{ m}^2$ or $2\frac{13}{16} \text{ m}^2$
9. $\frac{63}{4} \text{ cm}^2$ or $15\frac{3}{4} \text{ cm}^2$
10. (a) $\frac{7}{6} \text{ litres}$ or $1\frac{1}{6} \text{ litres}$ (b) $\frac{7}{3} \text{ litres}$ or $2\frac{1}{3} \text{ litres}$ (c) $\frac{23}{12} \text{ litres}$ or $1\frac{11}{12} \text{ litres}$

9.3 Dividing Fractions

1. (a) $\frac{1}{6}$ (b) $\frac{3}{8}$ (c) $\frac{1}{16}$ (d) $\frac{3}{16}$ (e) $\frac{5}{24}$ (f) $\frac{4}{10} = \frac{2}{5}$
(g) 12 (h) 27 (i) 24 (j) 8 (k) $\frac{15}{2}$ (l) $\frac{16}{3}$
(g) 56 (h) 7 (i) 21 (j) 9 (k) 18 (l) 143

9.3

Answers to Exercises

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3. (a) $\frac{3}{2}$ (b) $\frac{3}{4}$ (c) $\frac{9}{8}$ or $1\frac{1}{8}$ (d) $\frac{6}{5}$ or $1\frac{1}{5}$ (e) 6
- (f) $\frac{3}{4}$ (g) $\frac{25}{14}$ (h) $\frac{9}{7}$ (i) $\frac{9}{16}$ (j) $\frac{27}{4}$
- (k) $\frac{3}{7}$ (l) $\frac{32}{25}$
4. (a) $\frac{6}{13}$ (b) $\frac{14}{5}$ (c) $\frac{91}{40}$ (d) $\frac{7}{3}$ (e) $\frac{33}{4}$ (f) $\frac{147}{25}$
5. $\frac{1}{4}$ kg
6. $\frac{1}{40}$ litres
7. $\frac{3}{8}$ kg
8. (a) 18 (b) 8
9. (a) 5 cakes (b) 11 cakes (c) 13 cakes
10. (a) 40 miles (b) 60 miles (c) 72 miles