

Student Text *UNIT 3 Using Fractions and Percentages*

Answers

3.1 Addition and Subtraction of Fractions

1. (a) $\frac{2}{5}$ (b) $\frac{1}{2}$ (c) $\frac{6}{7}$ (d) $\frac{3}{7}$ (e) $\frac{3}{13}$ (f) $\frac{1}{3}$
 (g) $\frac{5}{3}$ (h) $\frac{7}{5}$ (i) $\frac{11}{7}$ (j) $\frac{2}{5}$ (k) $\frac{1}{3}$ (l) $\frac{1}{5}$

2. (a) 14, 29 (b) 6, 5, 11 (c) 2, 3 (d) 10, 13
 (e) 12, 14, 26 (f) 36, 35, 71

3. (a) $\frac{13}{24}$ (b) $\frac{39}{35}$ (c) $\frac{7}{32}$ (d) $\frac{13}{30}$ (e) $\frac{59}{56}$ (f) $\frac{7}{6}$
 (g) $\frac{17}{70}$ (h) $\frac{47}{24}$ (i) $\frac{32}{21}$ (j) $\frac{1}{14}$ (k) $\frac{13}{44}$ (l) $\frac{1}{2}$
 (m) $\frac{1}{12}$ (n) $\frac{5}{24}$ (o) $\frac{13}{24}$

4. $\frac{11}{15}$ acres

5. $\$1\frac{5}{12}$ million

6. $\frac{1}{10}$ cm

7. $\frac{17}{30}$

8. $\frac{3}{20}$

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

10. $2\frac{7}{12}$ kg

3.2 Multiplication and Division of Fractions

1. (a) $\frac{15}{28}$ (b) $\frac{7}{40}$ (c) $\frac{1}{15}$ (d) $\frac{27}{70}$ (e) $\frac{5}{14}$ (f) $\frac{9}{14}$
 (g) $\frac{3}{28}$ (h) $\frac{2}{21}$ (i) $\frac{2}{3}$ (j) 2 (k) $10\frac{5}{12}$ (l) $3\frac{3}{4}$
 (m) $14\frac{2}{5}$ (n) $9\frac{5}{8}$ (o) $30\frac{5}{14}$ (p) $11\frac{11}{28}$ (q) $9\frac{41}{48}$ (r) $1\frac{43}{56}$

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3.2

2. (a) $1\frac{1}{2}$ (b) $1\frac{1}{7}$ (c) $1\frac{2}{5}$ (d) $\frac{15}{32}$ (e) $\frac{10}{21}$ (f) $4\frac{3}{8}$
 (g) $1\frac{2}{3}$ (h) 22 (i) $\frac{64}{133}$ (j) $3\frac{3}{4}$ (k) $1\frac{1}{13}$ (l) $1\frac{71}{105}$
3. (a) $1\frac{1}{8}$ (b) $\frac{1}{2}$ (c) $6\frac{33}{40}$ (d) $3\frac{1}{5}$
4. $\frac{1}{8}$
5. $\frac{1}{3}$
6. Volume = $3\frac{3}{8} \text{ cm}^3$, Surface area = $13\frac{1}{2} \text{ cm}^2$.
7. $4\frac{1}{8}$ litres
8. $\frac{3}{2}$
9. $2\frac{1}{2} \text{ m}$
10. 7 cakes
11. $4\frac{1}{2}$ miles per hour
12. 10 items

3.3 Compound Interest and Depreciation

1. (a) \$1272 (b) \$1348.32 (c) \$1605.87
2. (a) \$8144.47 (b) \$7990.66 (c) \$10 021.16
3. C (\$51.94 interest)
4. (a) \$900 (b) \$284.77 (c) \$90.10
5. \$4608
6. (a) \$5600 (b) \$45 796
7. J\$178
8. (a) 45.23 million (b) 8 years
9. (a) (i) \$3132.04 (ii) 52.2% (b) (i) \$6264.08 (ii) 52.2%
10. (a) J\$18 000 (b) J\$57 131

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3.4 Reverse Percentage Problems

1. (a) \$608.50 (b) \$100.40
2. J\$19 200
3. J\$322
4. \$81 200
5. 550 ml
6. DVD player - \$320, TV set - \$424, Computer - \$1480, Calculator - \$14.51
7. \$9800
8. \$500
9. (a) J\$1029 (b) J\$658 (c) J\$337
10. \$3501.78