

Answers to Selected Exercises

- Chapter 2 Vocabulary Check** 1. reciprocals 2. composite number 3. equivalent 4. improper fraction 5. prime number 6. simplest form  
 7. proper fraction 8. mixed number 9. numerator; denominator 10. prime factorization 11. undefined 12. 0 13. cross products
- Chapter 2 Review** 1. proper 2. improper 3. proper 4. mixed number 5.  $\frac{2}{6}$  6.  $\frac{4}{7}$  7.  $\frac{7}{3}$  8.  $\frac{13}{4}$  9.  $\frac{11}{12}$  10. a. 108 b.  $\frac{108}{131}$  11.  $3\frac{3}{4}$   
 12.  $45\frac{5}{6}$  13. 3 14. 5 15.  $\frac{6}{5}$  16.  $\frac{22}{21}$  17.  $\frac{26}{9}$  18.  $\frac{47}{12}$  19. composite 20. prime 21. 1, 2, 3, 6, 7, 14, 21, 42 22. 1, 2, 4, 5, 10, 20 23.  $2^2 \cdot 17$   
 24.  $2 \cdot 3^2 \cdot 5$  25.  $5 \cdot 157$  26.  $3 \cdot 5 \cdot 17$  27.  $\frac{3}{7}$  28.  $\frac{5}{9}$  29.  $\frac{1}{3}$  30.  $\frac{1}{2}$  31.  $\frac{29}{32}$  32.  $\frac{18}{23}$  33. 8 34. 6 35.  $\frac{2}{3}$  of a foot 36.  $\frac{3}{5}$  of the cars 37. no  
 38. yes 39.  $\frac{3}{10}$  40.  $\frac{5}{14}$  41. 9 42.  $\frac{1}{2}$  43.  $\frac{35}{8}$  or  $4\frac{3}{8}$  44.  $\frac{5}{2}$  or  $2\frac{1}{2}$  45.  $\frac{5}{3}$  or  $1\frac{2}{3}$  46.  $\frac{49}{3}$  or  $16\frac{1}{3}$  47. Exact:  $\frac{26}{5}$  or  $5\frac{1}{5}$ ; Estimate: 6  
 48. Exact:  $\frac{60}{11}$  or  $5\frac{5}{11}$ ; Estimate: 8 49.  $\frac{99}{4}$  or  $24\frac{3}{4}$  50.  $\frac{1}{6}$  51.  $\frac{110}{3}$  or  $36\frac{2}{3}$  g 52.  $\frac{135}{4}$  or  $33\frac{3}{4}$  in. 53.  $\frac{119}{80}$  or  $1\frac{39}{80}$  sq in. 54.  $\frac{275}{8}$  or  $34\frac{3}{8}$  sq m 55.  $\frac{1}{7}$   
 56. 8 57.  $\frac{23}{14}$  58.  $\frac{5}{17}$  59. 2 60.  $\frac{15}{4}$  or  $3\frac{3}{4}$  61.  $\frac{5}{6}$  62.  $\frac{8}{3}$  or  $2\frac{2}{3}$  63.  $\frac{21}{4}$  or  $5\frac{1}{4}$  64.  $\frac{121}{46}$  or  $2\frac{29}{46}$  65. 22 mi 66.  $\frac{21}{20}$  or  $1\frac{1}{20}$  mi 67. proper  
 68. improper 69. mixed number 70. improper 71.  $31\frac{1}{4}$  72. 6 73.  $\frac{95}{17}$  74.  $\frac{47}{6}$  75. composite 76. prime 77.  $2^2 \cdot 3^2 \cdot 5$  78.  $2 \cdot 7^2$   
 79.  $\frac{9}{10}$  80.  $\frac{5}{7}$  81.  $\frac{14}{15}$  82.  $\frac{3}{5}$  83.  $\frac{7}{12}$  84.  $\frac{1}{4}$  85. 9 86.  $\frac{27}{2}$  or  $13\frac{1}{2}$  87. Exact: 10; Estimate: 8 88. Exact:  $\frac{51}{4}$  or  $12\frac{3}{4}$ ; Estimate: 12  
 89.  $\frac{7}{3}$  or  $2\frac{1}{3}$  90.  $\frac{32}{5}$  or  $6\frac{2}{5}$  91.  $\frac{81}{2}$  or  $40\frac{1}{2}$  sq ft 92.  $\frac{47}{61}$  in.

- Chapter 2 Cumulative Review** 1. hundred-thousands (Sec. 1.2, Ex. 1) 2. two thousand, thirty-six 3. 805 (Sec. 1.2, Ex. 9) 4. 31  
 5. 184,046 (Sec. 1.3, Ex. 2) 6. 39 7. 13 in. (Sec. 1.3, Ex. 5) 8. 17 9. 98,638 (Sec. 1.3, Ex. 7) 10. 5 11. 7321 (Sec. 1.4, Ex. 2) 12. 64  
 13. a. Indonesia b. 236 (Sec. 1.3, Ex. 8) 14. 25 R 5 15. 570 (Sec. 1.5, Ex. 1) 16. 2400 17. 1800 (Sec. 1.5, Ex. 5) 18. 300 19. a. 6 b. 0 c. 45  
 d. 0 (Sec. 1.6, Ex. 1) 20. 20 21. a.  $3 \cdot 4 + 3 \cdot 5$  b.  $10 \cdot 6 + 10 \cdot 8$  c.  $2 \cdot 7 + 2 \cdot 3$  (Sec. 1.6, Ex. 2) 22. 180 23. a. 0 b. 0 c. 0 d. undefined  
 (Sec. 1.7, Ex. 3) 24. 154 sq mi 25. 208 (Sec. 1.7, Ex. 5) 26. 4014 27. 12 cards; 10 cards left over (Sec. 1.7, Ex. 11) 28. 63 29. 40 ft (Sec. 1.8, Ex. 5)  
 30. 16 31.  $7^3$  (Sec. 1.9, Ex. 1) 32.  $7^4$  33.  $3^4 \cdot 17^3$  (Sec. 1.9, Ex. 4) 34.  $2^2 \cdot 3^4$  35. 7 (Sec. 1.9, Ex. 12) 36. 0 37.  $\frac{2}{5}$  (Sec. 2.1, Ex. 7) 38.  $2^2 \cdot 3 \cdot 13$   
 39. a.  $\frac{38}{9}$  b.  $\frac{19}{11}$  (Sec. 2.1, Ex. 17) 40.  $\frac{39}{5}$  41. 1, 2, 4, 5, 10, 20 (Sec. 2.2, Ex. 1) 42. yes 43.  $\frac{7}{11}$  (Sec. 2.3, Ex. 2) 44.  $\frac{2}{3}$   
 45.  $\frac{35}{12}$  or  $2\frac{11}{12}$  (Sec. 2.4, Ex. 8) 46.  $\frac{8}{3}$  or  $2\frac{2}{3}$  47.  $\frac{3}{1}$  or 3 (Sec. 2.5, Ex. 3) 48.  $\frac{1}{9}$  49.  $\frac{5}{12}$  (Sec. 2.5, Ex. 6) 50.  $\frac{11}{56}$