

Test Solutions

Test 1

1. have
2. owe
3. owe
4. $(+8) + (-7) = +1$
5. $(-10) + (-2) = -12$
6. $(-7) + (-15) = -22$
7. $(+9) + (-11) = -2$
8. $(+32) + (+96) = +128$
9. $(+4) + (-13) = -9$
10. $(-5) + (-18) = -23$
11. $(-436) + (-251) = -687$
12. $(-511) + (+709) = +198$
13. $10 \div 5 = 2$
 $2 \times 1 = 2$
14. $9 \div 3 = 3$
 $3 \times 2 = 6$
15. $32 \div 8 = 4$
 $4 \times 7 = 28$
16. $30 \div 2 = 15$
 $15 \times 1 = 15$
17. $(+25) + (-17) = +8$ paces
18. $(\$ -5) + (\$ -6) = \$ -11$
19. $20 \div 5 = 4$
 $4 \times 4 = 16$ won prizes
20. $254 \div 2 = 127$ pages read

Test 2

1. $(+52) - (-23) =$
 $(+52) + (+23) = +75$
2. $(-35) - (-16) =$
 $(-35) + (+16) = -19$
3. $(+54) - (+15) =$
 $(+54) + (-15) = +39$
4. $(-7) - (+24) =$
 $(-7) + (-24) = -31$

5. $(-36) - (+49) =$
 $(-36) + (-49) = -85$
6. $(+22) - (-30) =$
 $(+22) + (+30) = +52$
7. $(+30) + (-24) = +6$
8. $(-53) - (+10) =$
 $(-53) + (-10) = -63$
9. $(+13) + (-2) = +11$
10. $(-33) - (+2) =$
 $(-33) + (-2) = -35$
11. $(-7) + (+1) = -6$
12. $(-4) - (+18) =$
 $(-4) + (-18) = -22$
13. $\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$
14. $\frac{2}{8} - \frac{1}{8} = \frac{1}{8}$
15. $\frac{5}{7} - \frac{2}{7} = \frac{3}{7}$
16. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$
17. $\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$ of the cake
18. $15 \div 3 = 5$
 $15 - 5 = 10$ dimes
19. $\$21 - \$25 = \$ -4$
20. $(+46) + (-15) = +31$ coins

Test 3

1. $(-20) \times (-4) = +80$
2. $(+19) \times (-3) = -57$
3. $(-30) \times (-17) = +510$
4. $(-27) \times (+8) = -216$
5. $(-9) \times (+2) = -18$
6. $(-7) \times (-29) = +203$
7. $(+33) - (-46) =$
 $(+33) + (+46) = +79$
8. $(-27) + (-10) = -37$

9. $(-41) - (-20) =$
 $(-41) + (+20) = -21$
10. $24 \div 3 = 8$
 $8 \times 1 = 8$
11. $15 \div 5 = 3$
 $3 \times 2 = 6$
12. $28 \div 7 = 4$
 $4 \times 3 = 12$
13. $\frac{5}{8} - \frac{3}{8} = \frac{2}{8}$
14. $\frac{7}{10} - \frac{1}{10} = \frac{6}{10}$
15. $\frac{1}{4} + \frac{1}{4} = \frac{2}{4}$
16. $\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{4}{20}$
17. $\frac{2}{3} = \frac{4}{6} = \frac{6}{9} = \frac{8}{12}$
18. $\frac{1}{5} + \frac{3}{5} = \frac{4}{5}$ of the chores
19. $\$ -4 \times (+5) = \$ -20$
20. $(-2) \times (+6) = -12$ ft

Test 4

1. $\frac{-6}{-2} = +3$
2. $35 \div (-7) = -5$
3. $(-48) \div (-6) = +8$
4. $\frac{-28}{-4} = +7$
5. $26 \div (-2) = -13$
6. $(-56) \div 7 = -8$
7. $(-3) \times (+6) = -18$
8. $(+4) \times (-2) = -8$
9. $(-5) \times (-6) = +30$
10. $(-38) + (+12) = -26$
11. $(+47) + (-39) = +8$
12. $(-21) - (-45) =$
 $(-21) + (+45) = +24$
13. $\frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$
14. $\frac{4}{10} + \frac{4}{10} = \frac{8}{10} = \frac{4}{5}$

15. $\frac{7}{8} - \frac{1}{8} = \frac{6}{8} = \frac{3}{4}$
16. $D = 6$
17. no, whole numbers are non-negative
yes
18. $20 \div 5 = 4$
 $4 \times 4 = 16$ right
19. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$ were either woodpeckers
or chickadees
20. $\$ -500 \div 10 = \$ -50$ per person

Test 5

1. $5^2 = (5)(5) = 25$
2. $1^6 = (1)(1)(1)(1)(1)(1) = 1$
3. $3^3 = (3)(3)(3) = 27$
4. $\left(\frac{1}{2}\right)^4 = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = \frac{1}{16}$
5. 4
6. 3
7. 5
8. 5
9. 3
10. 2
11. $\frac{1}{3} = \frac{7}{21}$
12. $\frac{3}{4} = \frac{12}{16}$
13. $\frac{7}{10} = \frac{14}{20}$
14. $\frac{1}{3} = \frac{8}{24}$; $\frac{3}{8} = \frac{9}{24}$; $\frac{8}{24} < \frac{9}{24}$
15. $\frac{2}{5} = \frac{14}{35}$; $\frac{4}{7} = \frac{20}{35}$; $\frac{14}{35} < \frac{20}{35}$
16. $\frac{3}{4} = \frac{27}{36}$; $\frac{5}{9} = \frac{20}{36}$; $\frac{27}{36} > \frac{20}{36}$
17. $3 \times 3 \times 3 \times 3$; 3^4 , 81
18. $12 \div 4 = 3$
 $3 \times 3 = 9$ pencils given away
 $12 - 9 = 3$ pencils left
19. $\$ -63 \div 7 = \$ -9$
20. $\$ -12 + \$ -7 = \$ -19$