

### Section 1.3 Focus Exercise Answers

1. a)  $10 - 3 = 10 + (-3) = 7$       b)  $15 - 5 = 15 + (-5) = 10$   
c)  $8 - 12 = 8 + (-12) = -4$       d)  $9 - 9 = 9 + (-9) = 0$   
e)  $-2 - 4 = -2 + (-4) = -6$       f)  $-6 - 9 = -6 + (-9) = -15$   
g)  $3 - 8 = 3 + (-8) = -5$       h)  $-16 - 1 = -16 + (-1) = -17$
2. a)  $7 - 4 = -4 + 7 = 3$       b)  $2 - 12 = -12 + 2 = -10$   
c)  $-3 + 6 = 6 - 3 = 3$       d)  $-9 - 1 = -1 - 9 = -10$   
e)  $-10 - 8 = -8 - 10 = -18$       f)  $8 - 20 = -20 + 8 = -12$   
g)  $-15 + 51 = 51 - 15 = 36$       h)  $22 - 29 = -29 + 22 = -7$
3. a)  $8 - (-10) = +8$  and the opposite of  $-10 = 8 + 10 = 18$   
b)  $-3 - (-4) = -3$  and the opposite of  $-4 = -3 + 4 = 1$   
c)  $7 - (-9) = +7$  and the opposite of  $-9 = 7 + 9 = 16$   
d)  $-9 - (-4) = -9$  and the opposite of  $-4 = -9 + 4 = -5$   
e)  $-12 - (-7) = -12$  and the opposite of  $-7 = -12 + 7 = -5$   
f)  $-6 - (-6) = -6$  and the opposite of  $-6 = -6 + 6 = 0$
4. a)  $2 - (-7) = 2 + 7 = 9$       b)  $12 - (-2) = 12 + 2 = 14$   
c)  $-3 - (-5) = -3 + 5 = 2$       d)  $-6 - (-7) = -6 + 7 = 1$   
e)  $-4 - (-4) = -4 + 4 = 0$       f)  $0 - (-10) = 0 + 10 = 10$
5. a) 0.8      b) -5.5      c) -0.7      d) -1.1      e) -9.3      f) -7.4  
g) -1.25      h) -2.52      i)  $\frac{5}{9}$       j)  $-\frac{10}{11}$       k)  $\frac{11}{25}$       l)  $-\frac{6}{7}$   
m)  $\frac{9}{13}$       n)  $-\frac{5}{14}$       o)  $\frac{13}{11}$       p)  $\frac{17}{21}$
6. Numerical expression:  $23 - 35 = -12$ ; Marla's new balance is  $-\$12$ .
7. Numerical expression:  $-64 - 36 = -100$ ; Tom's new balance is  $-\$100$ .
8. Numerical expression:  $-6 + 13 = 7$ ; The temperature at noon was  $7^\circ$ .
9. Numerical expression:  $-2 - 15 = -17$ ; The temperature at 10:00 PM was  $-17^\circ$ .