Section 1.7   Focus Exercises

1.   Evaluate the numerical value of each formula with the given replacement values.

a) $z = \dfrac{x - m}{s}$ $x = 16$ b) $A = \dfrac{a + b + c}{3}$ $a = 13$

                                      $m = 25$ $b = 41$

                                      $s = \ \ 3$ $c = 33$

c) $a = \sqrt{c^2 - b^2}$ $c = 13$ d) $A = \dfrac{1}{2} \cdot b \cdot h$ $b = 5$

                                      $b = 12$ $h = 8$

e) $P = 2 \cdot L + 2 \cdot W$ $L = 13$ f) $r = \dfrac{d}{t}$ $d = 24$

                                      $W = \ \ 8$ $t = \dfrac{3}{4}$

g) $A = \dfrac{1}{2} \cdot h \cdot (b + B)$ $h = 3$ h) $I = P \cdot r \cdot t$ $P = 500$

                                      $b = 5$ $r = .08$

                                      $B = 7$ $t = \dfrac{1}{2}$

i) $m = \dfrac{y - w}{x - v}$ $y = \ \ 1$ j) $c = \sqrt{a^2 + b^2}$ $a = -4$

                                      $w = -8$ $b = \ \ 3$

                                      $x = \ \ -6$

                                      $v = (-3)$

3.   Find the simple interest based on the given information. $I = P \cdot r \cdot t$

a)   Sally put $800 in a special account that gained 9% interest. How much interest did the account gain after 1 year?

b)   Mark put $5,000 in a special account that gained 6% interest. How much interest did the account gain after 8 months?

3.   April needed to travel 335 miles by car. She was able to make the trip in 5 hours. What was her average rate of speed? Use $\text{rate} = \dfrac{\text{distance}}{\text{time}}$

4.   Reggie needed to go 9 miles on his bike. He was able to make the trip in $\frac{3}{4}$ hours. What was his average rate of speed? Use $\text{rate} = \dfrac{\text{distance}}{\text{time}}$