

Section 1.7 Focus Exercises

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

a) $z = \frac{x - m}{s}$

$x = 16$

$m = 25$

$s = 3$

b) $A = \frac{a + b + c}{3}$

$a = 13$

$b = 41$

$c = 33$

c) $a = \sqrt{c^2 - b^2}$

$c = 13$

$b = 12$

d) $A = \frac{1}{2} \cdot b \cdot h$

$b = 5$

$h = 8$

e) $P = 2 \cdot L + 2 \cdot W$

$L = 13$

$W = 8$

f) $r = \frac{d}{t}$

$d = 24$

$t = \frac{3}{4}$

g) $A = \frac{1}{2} \cdot h \cdot (b + B)$

$h = 3$

$b = 5$

$B = 7$

h) $I = P \cdot r \cdot t$

$P = 500$

$r = .08$

$t = \frac{1}{2}$

i) $m = \frac{y - w}{x - v}$

$y = 1$

$w = -8$

$x = -6$

$v = (-3)$

j) $c = \sqrt{a^2 + b^2}$

$a = -4$

$b = 3$

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 $\text{rate} = \frac{\text{distance}}{\text{time}}$
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 $\text{rate} = \frac{\text{distance}}{\text{time}}$