

## Lesson 7.1.1

7-7. See below:

a. If  $s$  is the price of a can of soup and  $b$  is the cost of a loaf of bread, then Khalil's purchase can be represented by  $4s + 3b = \$11.67$  and Ronda's by  $8s + b = \$12.89$

b. soup = \$1.35, bread = \$2.09

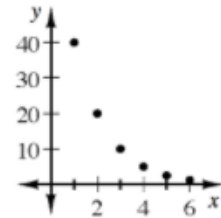
7-8. Sometimes true; true only when  $x = 0$

7-9. See below:

a. It can be geometric, because if each term is multiplied by  $\frac{1}{2}$ , the next term is generated.

b. See graph at right.

c. No, because the sequence approaches zero, and half of a positive number is still positive.



7-10. See below:

a. 90cm

b. 37.97cm

c.  $r(n) = 160(0.75)^n$

7-12. See below:

a.  $9x^4y^2z^8$

b.  $\frac{r^3}{s6t^3}$

c.  $6m^2 + 11m - 7$

d.  $x^2 - 6x + 9$

7-13.  $\frac{150}{4.5} = \frac{90}{x}$ ; 2.7 pounds

## Lesson 7.1.1

**7-15. See below:**

a.  $a_1 = 108, a_{n+1} = a_n + 12$

b.  $a_1 = \frac{2}{5}, a_{n+1} = 2a_n$

c.  $t(n) = 3780 - 39n$

d.  $t(n) = 585(0.2)^n$

**7-16. See below:**

a. 1.25

b. 0.82

c. 1.39

d. 0.06