5-41. All of the triangles are similar. They are all equilateral triangles.

5-42. Since $\tan (33.7°) \approx \frac{2}{3}$, $y = \frac{2}{3} x + 7$.

5-43. See below.

   a. $a_n = 108 + 12(n - 1) = 96 + 12n$

   b. $a_n = \frac{2}{5} (2)^{n-1} = \frac{1}{5} (2)^n$

   c. $a_n = 3741 - 39(n - 1) = 3780 - 39n$

   d. $a_n = 117(0.2)^{n-1} = 585(0.2)^n$

5-44. See below.

   a. $\sin \theta = \frac{b}{a}$

   b. $\tan \theta = \frac{a}{b}$

   c. $\cos \theta = \frac{a}{b}$

5-45. See below.

   a. $\frac{22}{52}$; union

   b. $\frac{3}{52}$; intersection

   c. $1 - \frac{22}{52} = \frac{30}{52}$

5-46. See below.

a. $\cos 23° = \frac{18}{x}$ or $0.921 = \frac{18}{x}$

b. Since $67°$ is complementary to $23°$, then $\sin 67° = \cos 23°$. So $\sin 67° \approx 0.921$.