4-27. See below.

  a. They both could be. It depends on which angle is used as the slope angle.

4-28. See below.

  a. Yes, since the slope ratio is greater than 1, the angle must be greater than 45°.

  b. Isiah is correct. Since the angle is less than 45°, the slope ratio must be less than 1.

  c. Since the angle is greater than 45°, x must be less than 9.

4-29. See below.

  a. A; $a_n = 1 + 3(n-1) = 3n - 2$

  b. neither

  c. G; $a_n = 2 \cdot 2^{n-1} = 2^n$

  d. A; $a_n = 5 + 7(n-1) = 7n - 2$

4-30. Answers vary, possible solution: square, equilateral triangle, and equilateral hexagon.

4-31. See below.

  a. $\frac{2}{5}$

  b. Yes. If the first song is a country song, then there is only 1 country song left to play out of 4 songs. Therefore, the chance that the second song is a country song is $\frac{1}{4}$.

  c. $\frac{1}{2}$, because only 2 songs are left and only one is sung by Sapphire.

  d. $\frac{1}{3}$; same

4-32. See below.

  a. $m\angle ABC = 22°$, $m\angle BAC = 68°$, sum $= 90°$; complementary