

5-45. See below:

- a. One possible answer is that their growth grows linearly.
- b. Answers vary. Sample: The sequence of differences between terms turns out to be almost the same as the sequence itself. Or, add the two previous terms to get the next term.

5-46. See below:

- a. Exponential, because the ratio of one rebound to the next is roughly constant (≈ 0.6).
- b. 475, 290, 175, 100, 60; Roughly geometric, because it has a multiplier (though students may say it is neither because the multiplier is not exact).

5-47. 2.1×10^9 pencils

5-48. See below:

- a. -3
- b. $y = -3x - 5$

5-49. 43 ounces

5-50. $\frac{1}{2}bh = \frac{1}{2}(200)(270) = 27,000$ square units