

5-35. See below:

- a. Answers vary but should be close to 0.83.
- b. Approximately 228 cm. Since DeShawna measured to the nearest centimeter, a prediction rounded to the nearest centimeter would be reasonable.
- c. 72 cm
- d. 166 meters
- e. 138 meters, 114 meters

5-36. See below:

- a. $10(0.555) = 5.55$ feet
- b. $10(0.555)(0.555) \approx 3.08$ feet
- c. $10(0.555)^5 \approx 0.527$ feet

5-37. $f(x) = 3x - 5$

5-38. See below:

- a. College admission rates and student anxiety have a plausible negative association. However, admission rates could be plunging because the average number of universities a typical student applies to has increased dramatically with the widespread use of online college applications. It is more likely that student anxiety and the ease of online applications is fueling lower university admission rates. The total number of students attending college may actually be the same or even be increasing.
- b. For a small part of the population, those with celiac disease, gluten is a serious health problem. Those people aside, it is possible there is a link between gluten and obesity. Gluten is found in many grains. Grains are used to make many highly processed food products that are loaded with sugar and fats. Perhaps it is the sugar and fats in these foods causing obesity rather than the gluten.

5-39. See below:

- a. $x = 34$
- b. $x = 20$

5-40. See below:

- a. an isosceles triangle
- b. a rectangle