## Lesson 7 Practice Problems

1. Write with a single exponent:
a. $\frac{7^{6}}{7^{2}}$
b. $\left(11^{4}\right)^{5}$
c. $4^{2} \cdot 4^{6}$
d. $6 \cdot 6^{8}$
e. $\left(12^{2}\right)^{7}$
f. $\frac{3^{10}}{3}$
g. $(0.173)^{9} \cdot(0.173)^{2}$
h. $\frac{0.87^{5}}{0.87^{3}}$
i. $\frac{\left(\frac{5}{2}\right)^{8}}{\left(\frac{5}{2}\right)^{6}}$
2. Noah says that $2^{4} \cdot 3^{2}=6^{6}$. Tyler says that $2^{4} \cdot 4^{2}=16^{2}$.
a. Do you agree with Noah? Explain or show your reasoning.
b. Do you agree with Tyler? Explain or show your reasoning.
3. Make a sketch of a linear relationship with a slope of 4 and a negative $y$-intercept. Show how you know the slope is 4 and write an equation for the line.
(From Unit 5, Lesson 7.)
4. Using the data in the scatter plot, what can you tell about the slope of a good model?

A. The slope is positive.
B. The slope is zero.
C. The slope is negative.
D. There is no association.
(From Unit 5, Lesson 21.)
