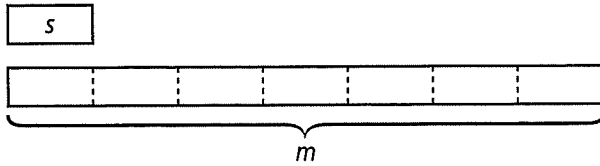


► Model and Solve Comparison Problems

The model below represents the time a student worked on spelling (s) and math (m) homework. Use the model for Problems 1–3.



- Write a comparison sentence that includes the words "as long as" and compares
 - m to s . _____
 - s to m . _____
- Write a comparison equation that compares
 - m to s . _____
 - s to m . _____
- Write a division equation that compares s to m .

Solve. Draw a model if you need to.

- The length of an unstretched spring is 120 cm. How long (l) will the spring be if it is stretched to 3 times that length?

- The length of a collapsed length fishing pole is c , which is $\frac{1}{8}$ times as long as its extended length. The extended length of the pole is 16 feet. What is its collapsed length?

- A maple tree in the backyard of a home has a height of 0.75 meters. How many times as tall (t) is a nearby hickory tree that is 9 meters tall?

► Multiplication and Scaling

You can predict how resizing one factor will affect a product.

Solve.

7. Gina and Mario each receive a weekly allowance.

So far this year, Gina has saved \$20 and Mario has saved 0.4 times that amount. Who has saved the greatest amount of money? Multiply to check your prediction.

Prediction: _____

8. Last week Camila worked 40 hours. Sergio worked $\frac{4}{5}$ that length of time. Which person worked more hours last week?

Prediction: _____

9. On a math quiz, Juan was asked to find these two products:

$$3 \times 10.6 \quad 2.7 \times 10.6$$

- a. Without using pencil and paper to actually find the products, how will the product of 3×10.6 compare to the product of 2.7×10.6 ? Explain your answer.

- b. How will the product of 2.7×10.6 compare to the product of 3×10.6 ? Explain your answer.

10. Vanessa was asked this question on a math quiz:

How does the value of a fraction change when both the numerator and the denominator of the fraction are multiplied by the same number?

Explain how Vanessa should answer the question, and include an example to support your explanation.
