Lesson 8.5

Model and Solve Multiplication Equations

Model and solve the equation by using algebra tiles.

1. \(2x = 8\)  
   \[x = 4\]

2. \(\frac{5x}{5} = \frac{10}{5}\)  
   \[x = 2\]

3. \(\frac{21}{3} = \frac{3x}{3}\)  
   \[x = 7\]

4. \(\frac{4x}{4} = \frac{20}{4}\)  
   \[x = 5\]

5. \(\frac{6x}{6} = \frac{6}{6}\)  
   \[x = 1\]

6. \(\frac{4}{2} = \frac{2x}{2}\)  
   \[x = 2\]

Solve the equation by drawing a model.

7. \(\frac{6}{3} = \frac{3x}{3}\)  
   \[x = 2\]

8. \(\frac{4x}{4} = \frac{12}{4}\)  
   \[x = 3\]

Problem Solving

9. A chef used 20 eggs to make 5 omelets. Model and solve the equation \(5x = 20\) to find the number of eggs \(x\) in each omelet.
   \[
   \frac{5x}{5} = \frac{20}{5} \\
   x = 4
   \]

10. Last month, Julio played 3 times as many video games as Scott did. Julio played 18 video games. Write and solve an equation to find the number of video games Scott played.
   \[
   \frac{3x}{3} = \frac{18}{3} \\
   x = 6
   \]

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