Name: _____ Date: _____

Chapter 11 Problems of the Week

1. The sum of $a + b$ is 144. The quotient $\frac{a}{b}$ is 0.6. What is the difference $b - a$?

2. At lunch, 70% of the students chose white milk and 15% chose chocolate milk. If 84 students chose white milk, how many chose chocolate milk?

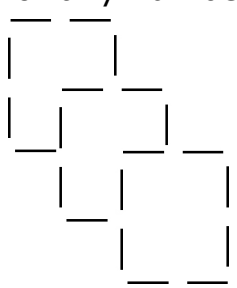
3. Distance equals speed multiplied by time. Use this information to write an equation for each of the following situations, then solve.

a) A car travels at 50 km/h for 3.5 h. How far does it travel?

b) A plane travels 700 km in 3.5 h. Find its average speed.

c) How long does it take a car to travel 600 km at 120 km/h?

4. These overlapping squares were made with toothpicks. Continue the pattern until you have eight squares. Write an equation to calculate the number of toothpicks for any number of squares.



5. Alianna and Jomar each want to start a savings account with $20. Alianna wants to put $3 in her account every month, while Jomar wants to add $1 every month. How long will it take for Alianna to have twice as much money as Jomar?

6. The following equation converts temperature from degrees Celsius to degrees Fahrenheit.

$$F = \frac{9}{5}C + 32$$

a) Convert 100 °C to degrees Fahrenheit.

b) Convert 80 °F to degrees Celcius.

7. A rectangle has a length of $2x + 15$ and a width of $3x + 5$. The perimeter of the rectangle is 50 cm. What is the area of the rectangle?

8. Light travels 600 000 km in 2 s.

a) Write an equation to determine the distance light travels in a given amount of time.

b) If light from Pluto takes 4.5 h to reach Earth, how far away is Pluto?