

4. The rental fee for a bike is \$10 plus \$3 for each hour the bike is used. How much will it cost if you rent the bike for:
- 1 hour?
 - 8 hours?
 - 1 day?
 - Write an expression that represents the cost for h hours.
5. A wireless service provider charges \$29.99 per month for service plus \$0.10 for each text message. How much will it cost if:
- 35 text messages are sent?
 - 105 text messages are sent?
 - 217 text messages are sent?
 - Write an expression to represent the cost if t text messages are sent
6. The formula for finding the Volume of a rectangular prism can be stated as $V = l \times w \times h$, where l = length of the prism, w = width of the prism and h = height of the prism. What is the Volume of a prism with:
- $l = 33$, $w = 47$, and $h = 15$?
 - $l = 22.5$, $w = 33.7$, and $h = 12.5$?
 - $l = 122.25$, $w = 50.75$, and $h = 16.5$?

7. The formula for finding the volume of a prism is $V=Bh$. What is the volume of the prism with:
- Area of the base is 16 cm and height is 2.4 cm?
 - Area of the base is $12\frac{1}{2}$ cm and height is 7cm?
 - Area of the base is $3\frac{3}{4}$ cm and height is $3\frac{1}{5}$ cm?
8. The formula for finding the volume of a cube is $V = s^3$, where s is equal to the length of one side of the cube. What is the volume of the cube with side length of:
- $\frac{1}{2}$ inches?
 - 26.4 meters?
 - 100 feet?
9. The formula for finding the surface area of a cube is $A = 6s^2$, where s is the length of one side of the cube. What is the surface area of a cube with side length of:
- $\frac{1}{2}$ inches?
 - 26.4 meters?
 - 100 feet?

Part II: For the first five problems read each carefully and write an expression that includes numbers and variables. Then, evaluate the expression using the numbers indicated. For the last five problems evaluate the expression for the numbers provided.

1. Mr. White drives 55 km a day for work. How many km will he drive in:
 - a. 5 days?
 - b. 8 days?
 - c. 15 days?
 - d. Write an expression to represent the number of km he will drive in d days
2. Sean's father is working on a crew that will build a skyscraper. He found out that each story is 13 ft tall. How tall, in feet, would the skyscraper be if it were:
 - a. 55 stories?
 - b. 65 stories?
 - c. 75 stories?
 - d. Write an expression to represent the height of a skyscraper with f stories
3. 55 figurines of a porcelain doll can be safely shipped in a case. A distributor is investigating to find which size box is the safest to hold the largest number of cases. How many figurines could be shipped in a box that could hold:
 - a. 750 cases?
 - b. 1000 cases?
 - c. 1250 cases?
 - d. Write an expression to represent the number of figurines that can be shipped in a box that holds c cases.

Name _____

Writing and Evaluating Expressions

Part I

Mr. Green's Math class is planning a trip to the IMAX Theater. It will cost \$10 for the school bus and the price of a ticket is \$13 dollars per student. What will determine the amount of money the class will have to make?

How will the number of students affect the price?

How will they know how much money they need to make?

What value varies in this example?

Write an expression to show the amount of money the class needs to make.

How much will it cost if 10 students attend?

How much will it cost if 17 students attend? Draw a model to represent this situation