

Practice Worksheet
 Content Standard: Language of Algebra
 Student Learning Expectations: Translate word expressions to symbolic expressions

1. What is the appropriate expression in words for this symbolic expression: $x + y/2xy$?

2. Translate this verbal sentence into an inequality: The sum of two numbers is less than 86.

3. Two buses carry 30 students from school to the movies. Bus Y carries 6 fewer than twice the number of students on Bus X. Write a system of equations to represent this situation.

4. Peter, Paul and Ryan save stamps. One day, Pete announced, "I have x stamps." So Paul counted his and said "I have three times as many as you do." Ryan then added, "I have 15 less than the two of you put together." Which expression represents the number of stamps Ryan has?
 - a. $2x - 15$
 - b. $3x - 15$
 - c. $4x - 15$
 - d. $4x + 15$
5. Greg has \$160 to buy 5 basketball tickets to see the Razorbacks play. If p represents the price of each ticket, write an expression representing the money Greg has left after purchasing the tickets.

6. The cost of renting a car at Ace Auto Rentals is \$45 a day plus \$0.05 a mile. What is the expression for total cost if d is the number of days and m is the number miles driven?

7. Translate this verbal sentence into an inequality: The sum of twice a number and 25 is greater than or equal to 50.

8. Today Mary has 6 less than one half the number of marbles she had yesterday. If m is the number of marbles she had yesterday, write an expression for the number of marbles Mary has today.

9. Josiah kept track of his favorite stock over a 7-day period. The price of that stock each day is listed in the table below.

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
50.25	49.75	49.25	48.75	48.25	47.75	47.25

- a. Josiah noticed that the stock prices followed a pattern. The same pattern continued on days 8 through 10. Determine the value of the stock on day 8, day 9 and day 10. Show or explain all of your work even if you use mental math or a calculator.
- b. Write the equation that represents the value, V , of the stock after d days. Show or explain all of your work even if you use mental math.
- c. Determine the value of Josiah’s favorite stock on day 15. Show or explain all of your work even if you use mental math or a calculator.
- d. Josiah decides to buy the stock the day it is priced at \$38.00. On which day will the stock have this price? Show or explain all of your work even if you use mental math or a calculator.

10. A camper can be rented for \$150 for the first day plus \$110 for each additional day. The table below shows the rates for renting the camper.

Number of Days	Total Cost
1	\$150
2	\$260
3	\$370
4	\$480
5	
6	

- a. Complete the table above. Show or explain all of your work even if you use mental math or a calculator.
- b. Let C represent the cost of renting the camper for d days. Write the equation for the cost of renting the camper. Explain all of your work.
- c. The camper can be purchased for \$5,400. Your family is planning a 45-day trip. Determine whether renting or buying the camper is the least expensive option. Show or explain all of your work even if you use mental math or a calculator.