MM Algebra
Mr. Villegas

Name: _____
Date: _____

*As you read the task below, underline any word you think might be important. Write a question mark next to anything you don't understand. Draw a box around the question or task you are being asked to complete, if any.*

# Substitute, Substitute

For each of Questions 1 through 9, show both of these steps.

- Replace the variable by the value shown, writing the resulting expression in complete detail.
- Compute the numeric value of the expression you get in the replacement step.

Be sure to insert parentheses or multiplication signs where needed.

*Note:* The instructions in Questions 1 through 9 illustrate some of the many ways to describe the process of substitution. You should use the two steps of replacement and evaluation in each case.


| | |
|---|---|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |
| 6. | |
| 7. | |
| 8. | |

1. Evaluate $5 + 6q$ at $q = 9$.
2. Find the value of $3z + 20$ when $z = -8$.
3. Get the numeric value of $15 - 4x$ for $x = -1$.
4. Evaluate $3t^2 + 7$ if $t = -2$.
5. What is $-r^2$ when $r = 8$?
6. Find $-w^2$ with $w = -6$.
7. Substitute $k = 3$ into $3 \cdot 2^k + 5$.
8. Evaluate $3a^3 + (4a)^2$ using $a = 5$.

9. Compare the results.

   a. Substitute $b = 6$ into $5b + 4 + 3b + 7$.

   b. Substitute $b = 6$ into $8b + 11$.

   c. Comment on what happened in parts a and b and explain why.

| | |
|---|---|
| a) | |
| b) | |
| c) | |