Expressions: Number Cube Activity

The student will represent verbal quantitative situations algebraically and evaluate these expressions for given replacement values of the variables.

SOL: A.1

MATERIALS: Expressions Number Cube handout and one number cube per group

Groups: 2 or more

Game:

Use a roll of the number cube to determine the value of each variable. Roll once to determine the value of a. The second roll will determine the value of b, and so on. Each student must evaluate the expression, showing all work. All in the group must agree on the answer. Then one person shows the correct work on the worksheet that is to be turned in.

Expressions—Number Cube Activity

Evaluate each expression. Use a roll of the number cube to determine the value of each variable. Roll once to determine the value of a. The second roll will determine the value of b, and so on. Each student must evaluate the expression, showing all work. All in the group must agree on the answer. Then one person shows the correct work on the worksheet that is to be turned in.

1. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$6ab - 2b + 3c$

2. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$b^2 - 4ac$

3. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$\dfrac{1}{2} a \, (b + c)$

4. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$\dfrac{3a + 6}{2b - 3c}$

5. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$a^2 c^3 - bc$

6. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$4a^2 + 3ab - c$

7. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$-b \, [a + (c - b)^2]$

8. $a =$ $\qquad$ $b =$ $\qquad$ $c =$ $\qquad$

$(a - b)^2 \bullet 5 \div (b + c)$