

Possible Solutions

Write an equivalent expression for $3(22 + 54 - 7)$.

- In order to solve this problem and generate equivalent expressions, the student must understand the distributive property of multiplication.

Possible Solution 1

- First, students may distribute the 3 with each number inside the parenthesis.

$$3 \times 22, 3 \times 54, \text{ and } 3 \times -7$$

- This would result in the following equivalent expression.

$$(3 \times 22) + (3 \times 54) + (3 \times -7)$$

Possible Solution 2

- First, students may distribute the 3 with each number in parenthesis as above.

$$3 \times 22, 3 \times 54, 3 \times -7$$

- This would result in the following expression.

$$(3 \times 22) + (3 \times 54) + (3 \times -7)$$

- Students can choose to go one step further to generate an equivalent expression, and solve the equations inside parenthesis.

$$66 + 162 - 21$$

Possible Solution 3

- Students may choose to start inside of the parenthesis, using the order of operations.

$$22 + 54 - 7 = 69$$

- This would result in the following equivalent expression, 3×69 .