Application of a Mathematical Process

Math Question:

Apply the process for (solving/factoring/simplifying)

_____ to the question _____.

Solution (Show Work)	Mathematical Steps (Written Out)

Application of a Mathematical Process (Question 1)

Math Question:

Apply the process for (solving/factoring/simplifying)

$$23 = 5m - 3m + 1$$

_____ to the question _____.

Solution (Show Work)	Mathematical Steps (Written Out)
$23 = 5m - 3m + 1$	Combine like terms.
$23 = 2m + 1$ $\underline{-1 \qquad -1}$	Subtract to eliminate the constant from both sides of the equation.
$\dfrac{22}{2} = \dfrac{2m}{2}$	Divide both sides by the number in front of the variable.
$11 = m$	
Check Solution	
$23 = 5m - 3m + 1$	Substitute what the variable equals into the original equation.
$23 = 5(11) - 3(11) + 1$	Multiply the terms.
$23 = 55 - 33 + 1$	Add/subtract from left to right.
$23 = 22 + 1$	Make sure both sides are equal. (If not, a mathematical error was made.)
$23 = 23$	

Application of a Mathematical Process (Question 2)

Math Question:

Apply the process for (solving/factoring/simplifying)

_____ $23 = 5m - 3m + 1$ _____ to the question _____ $4 + 4(p + 5) = 32$ _____ .

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Solution (Show Work)	Mathematical Steps (Written Out)
$4 + 4(p - 5) = 32$	*Distribute number outside the parenthesis.*
$4 + 4p - 20 = 32$	*Combine like terms.*
$4p - 16 = 32$ $\underline{+16 \qquad +16}$	*Add/subtract to eliminate the constant from both sides of the equation.*
$\dfrac{4p}{4} = \dfrac{48}{4}$ $p = 12$	*Divide both sides by the number in front of the variable.*
Check Solution $4 + 4(p - 5) = 32$	*Substitute what the variable equals into the original equation.*
$4 + 4(12 - 5) = 32$	*Add/subtract numbers in the parenthesis.*
$4 + 4(7) = 32$	*Multiply the terms.*
$4 + 28 = 32$	*Add/subtract from left to right.*
$32 = 32$	*Make sure both sides are equal. (If not, a mathematical error was made.)*