

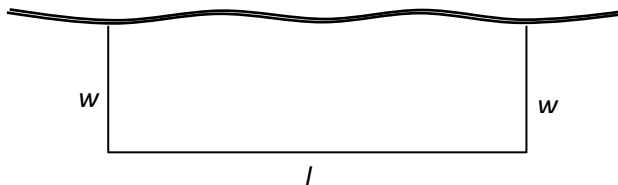
1. In the expression $\frac{x}{5} - 3$ which is the correct order in which operations have been done to x ?
 - (1) x was divided by 5 and the result was subtracted from 3
 - (2) x had 3 subtracted from it and the result was then divided by 5.
 - (3) x was divided by 5 and 3 was subtracted from the result
 - (4) 5 was divided by x and then 3 was subtracted from the result.

2. Which of the following is the solution to $6x + 1 = 4$? Show the steps or explain how you found the solution.
 - (1) $x = \frac{7}{6}$
 - (2) $x = \frac{1}{2}$
 - (3) $x = \frac{4}{3}$
 - (4) $x = \frac{5}{6}$

3. The solution to $5(x - 2) - 6 = 24$ is which of the following? Show the steps in your solution process.
 - (1) $x = 7$
 - (2) $x = -12$
 - (3) $x = -3$
 - (4) $x = 8$

4. If a number is increased by five and the result is then divided by three, the result is seven. Write an equation that models this verbal description and solve the equation for the number described.

5. A rectangular area is being fenced in along a river that serves as one side of the rectangle.
 - (a) Write an equation that relates the amount of fencing, F , needed as a function of the width w and the length l .
 - (b) If $w = 12$ feet and $l = 20$ feet, what is the value of F ?
 - (c) If we know that the amount of fencing we have available is 120 feet and we want to devote 30 feet to the length, l , then set up an equation to solve for w and find the width.



6. Consider the equation $\frac{5(2x-1)}{3} - 4 = 11$. This equation looks complicated, but we can unravel all of the operations that have been done to x to produce the output of 11.
 - (a) List the operations that have been done to x and the order in which they have been done.
 - (b) Reverse the operations from (a) to solve for x .

- R1. Max and his friend Zeke are comparing their ages. They figure out that if they double Max's age from 3 years ago and add it to Zeke's current age, the sum is 26. If Zeke is currently 8 years old, determine how old Max currently is.
- R2. Three less than 5 times a number is equivalent to 42. What is the number?
- R3. Simplify: $\frac{1}{3}(3x^3 - 12x^2)$ and identify the property that you used.
- R4. Simplify: $(2x^2 - x)(3x^2 + x)$
- R5. Factor: $3px + 3x$. What property will you use to check your answer?
- R6. State the property that is illustrated: $(4x^2 - 2m) + (2x^2 + 5m) = (4x^2 + 2x^2) + (-2m + 5m)$

1. (3)

2. (2)

3. (4)

4. $\frac{x+5}{3} = 7$

5. a. $F = 2w + l$

b. 44

c. $w = 45$

6. a. Multiply by 2

Subtract 1

Multiply by 5

Divide by 3

Subtract 4

b. $x = 5$

R1. 12

R2. 9

R3. $x^3 - 4x^2$

Distributive Property

R4. $6x^4 - x^3 - x^2$

R5. $3x(p+1)$

Distributive Property

R6. Commutative & Associative