

1 – 7 Application



QUICK REVIEW

1. Evaluate the expression when $x = 4$

$$-2x^2 + 3x + 1$$

2. Write the expression, equation, or inequality:

“Twice the sum of a number and three is twelve.”

Simplify:

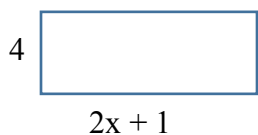
1. $\frac{2}{5}(10m - 15)$

2. $3 + 2(b - 4)$

Simplify the following formulas. You will have x in your answer.

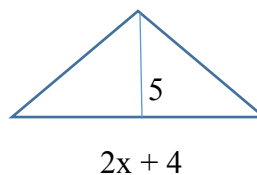
3. The Perimeter of a rectangle is

$$2b + 2h \text{ when } b = 4 \text{ and } h = (2x + 1)$$

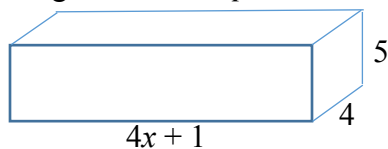


4. The Area of a triangle is $\frac{1}{2}bh$ when $b = 5$ and

$$h = (2x + 4)$$



5. Surface area of a rectangular solid is $ph + 2lw$ when $p = (8x + 10)$, $h = 5$, $l = 4$, and $w = (4x + 1)$



(1) $4m - 6$, (2) $2b - 5$, (3) $4x + 10$, (4) $5x + 10$, (5) $72x + 52$

6. Given the set of numbers in the domain below, use the function to find the range.

$$\text{Domain: } \left\{ -2.5, -\frac{3}{4}, 0, 4 \right\}$$

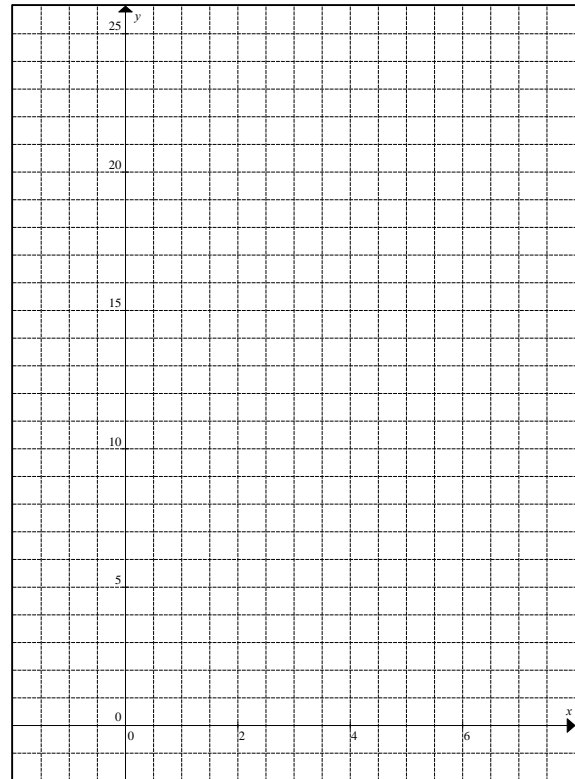
$$\text{Equation: } y = 4 - 2(4x - 5)$$

$$\text{Range: } \{ \quad \quad \quad \}$$

7. Given the equation $y = 2(3x + 1)$. Complete the table. HINT: first find y when $x = -2$ then find y when $x = 0$ and so on...)

x	y
-2	
0	
2	
	26

8. Graph the points from the table above in #7 on the grid below. Connect the points. What shape does it make?



9. Is the equation true if $x = 4$?

$$2(3x - 4) = 16$$

10. Is the equation true if $x = 6$?

$$-\frac{3}{4} + 2 = \frac{3}{2} - 2$$

(6) $\{-18, 14, 20, 34\}$, (7) $\{-10, 2, 14, 4\}$, (8) line, (9) yes, (10) no