



## Math 6 & 7 Summer Assignment 2021-2022 School Year

**Directions:** Solve the following without a calculator. Show ALL work! (You may need extra paper.)

### Part 1 - Positive and Negative Integers (Order of Operations)

a. $(14 - 9)2 - 27$	b. $-57 \cdot 21$
c. $-27 \cdot (-358)$	d. $.25 \cdot (-423) + 89$

### Part 2 - Expressions

**Directions:** Write an expression.

a. 5 times a number minus 2	b. a number squared plus 4
c. the quotient of 25 and a number	d. the product of 8 and a number plus 12

**Directions:** Simplify the expression. Show ALL work! (You may need extra paper.)

a. $7s + 2 + 8s - 12$	b. $x \cdot x \cdot 5 \cdot x$	c. $3(a + b - 2)$
d. $0.02x + x$	e. $13(6w - 12)$	f. $-1.3a + 0.5 - 2.6a$

**Directions:** Factor the expression. Show ALL work!

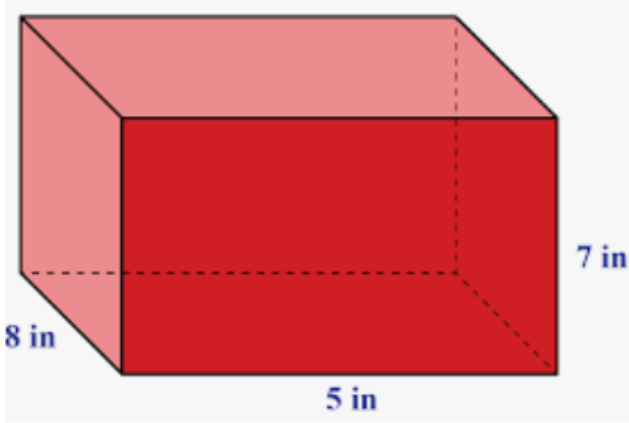
a. $7x + 14$	b. $15 - 5y$
c. $21a + 2b - 9$	d. $2x^2 + 6x$

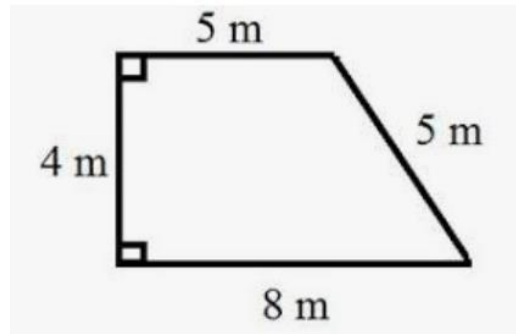
**Directions:** Solve the expression without a calculator. Show ALL work!

a. $65n^3$ when $n = -5$	b. $40 - 8x$ when $x = 2$
e. $7(a - 5)$ when $a = -13$	f. $3x^2 + 7x$ when $x = 3$

**Part 3 - Area, Surface Area, and Volume**

**Directions:** Solve the following without a calculator. Show ALL work! (You may need extra paper.)

 <p>The diagram shows a rectangular prism with a light red top face and a darker red front and right side. The dimensions are labeled: the front edge is 8 in, the bottom edge is 5 in, and the right edge is 7 in. Dashed lines indicate the hidden edges of the prism.</p>	<p>Name the shape:</p> <p>Draw a net of the shape:</p>
<p>Calculate the surface area:</p>	<p>Calculate the volume:</p>

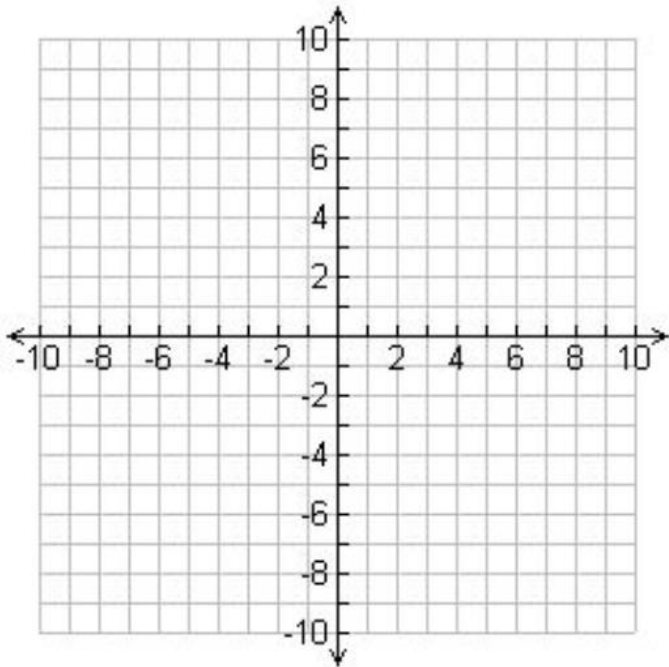


Calculate the area:

Calculate the perimeter:

### Part 4 - Graphing

**Directions:** Solve the following without a calculator. Show ALL work! (You may need extra paper.)



Graph the line.

Complete the function table:

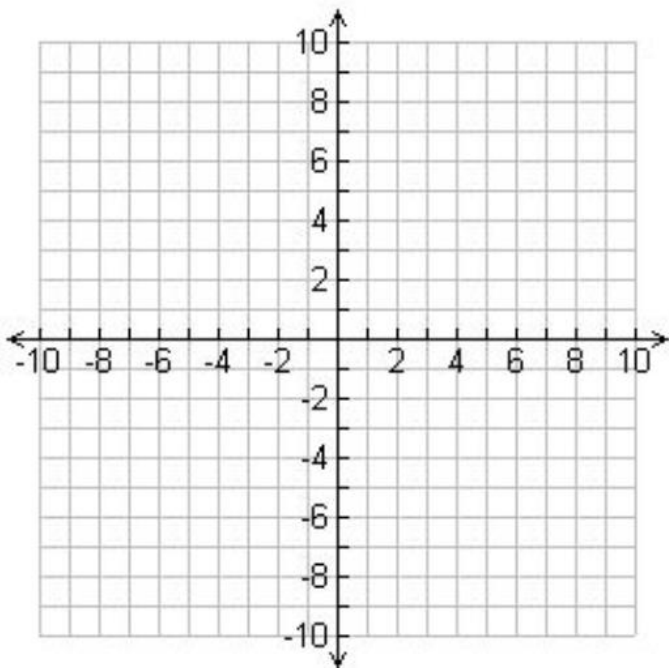
<b>x</b>	-1	0	1	2	3
<b>y</b>	-4	-3	-2	-1	0

Write a function based on the table:

Find the y value if  $x = 8$

What is the slope?

What is the y-intercept?



Graph the line.

Complete the function table:

<b>x</b>	-1	0	1	2	3
<b>y</b>	-1	1	3	5	7

Write a function based on the table:

Find the y value if  $x = -4$

What is the slope?

What is the y-intercept?