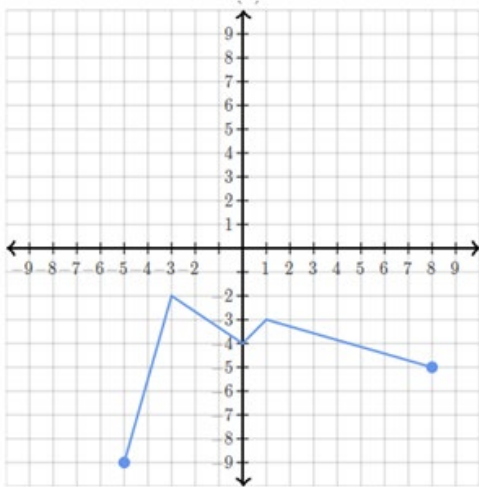


Name: _____ Algebra - Homework Week 28

1. Solve the equation.

$$3(x + 4) + 4(x - 5) = 8 + 3x + 6x - 4$$

2. State the domain and range.



3. Write a linear equation in both slope-intercept and standard form for a line that passes through the points $(-4, 3)$ and $(-2, 4)$.

4. Solve the system of equations using any method.

$$9x - 6y = -24$$

$$18x - 5y = 1$$

5. Simplify.

$$\frac{2a^2}{(a^3)^{-1} \cdot (2a^3b^{-2})^0}$$

6. Factor as completely as possible.

$$9x^2 + 30x + 16$$

7. Write a verbal description for what the graph of the equation $y = 2(x - 5)^2 - 8$ looks like compared to the quadratic parent function. Include axis of symmetry, vertex, direction of opening, and how it is translated.

8. Find the roots using any method. $4x^2 - 7 = 57$

Use the griddables to answer #9 and #10.

9. What is the negative root of the given equation $3x^2 + 6x - 72 = 0$?

+
-	0	0	0	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9

10. The 8th graders at Madisonville Junior High and College Station took a trip to the museum. Madisonville rented and filled 6 vans and 1 bus for a total of 126 students. College Station rented 3 vans and 13 buses with 438 students. Each van and bus had the same number of students. How many students can each bus carry?

+
-	0	0	0	0	0	0	0
	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	4	4	4	4	4	4	4
	5	5	5	5	5	5	5
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	8	8	8	8	8	8	8
	9	9	9	9	9	9	9