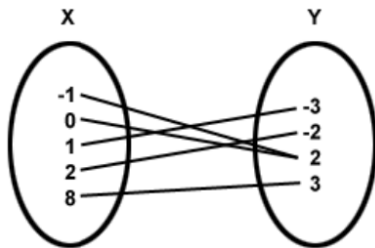


Name: \_\_\_\_\_ Algebra - Homework Week 27

1. Solve for the given variable.

$$4(6 + 6x) = 6(7x - 4) + 6x$$

2. State the domain and range.



3. Write the equation in both slope-intercept and standard form for a line passing through  $(-5, -1)$  and  $(-3, 3)$ .

4. Solve the system of equations.

$$\begin{aligned} -x + 3y &= 12 \\ -2x - 7y &= -2 \end{aligned}$$

5. Write and solve a system of equations for the given situation.

Michaela and Heather each planted ferns and shrubs in their yards. They bought the plants from the same store on the same day. Michaela spent \$220 on 8 ferns and 12 shrubs. Heather spent \$66 on 5 ferns and 1 shrub. What is the cost of one fern and the cost of one shrub?

6. Simplify.

$$\frac{(m^2 n^{-4})^2 \cdot 2m}{2m^{-1} n^2}$$

7. Factor as much as possible.

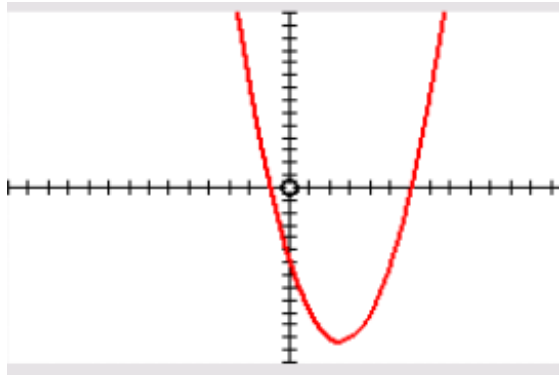
$$2x^2 + 5x - 3$$

8. Solve using the square root method.

$$5x^2 - 8 = 172$$

Use the griddables to answer #9 and #10.

9. What is the sum of the roots for the equation  $x^2 - 5x - 6 = 0$ ?



+	·	·	·	·	·	·	·
-	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. A quadratic function is represented by the equation  $h(x) = 3x^2 - 15x - 18$ . What is the axis of symmetry for the graph?

+	·	·	·	·	·	·	·
-	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