

ALEKS® Final Prep Quiz 2 #1

Beginning and Intermediate Algebra Combined / MATH 102 - Fall 2014 – 504 (Prof. Miller)

Student Name/ID:

Instructor Note:

Directions: Every problem is worth two points. One point is for trying the problem and showing your work and one point is for getting the correct answer. There are an additional five points for demonstrating the study strategy that is posted on the board and talked about at the beginning of class.

1. Simplify.

$$2vx^{-2} \cdot 7v^{-1} \cdot 4u^7u^{-1}x^{-4}$$

Use only positive exponents in your answer.

2. For each relation, decide whether or not it is a function.

<p>Relation 1</p> <table border="0"> <thead> <tr> <th>Domain</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>desk</td> <td rowspan="4">-8</td> </tr> <tr> <td>paper</td> </tr> <tr> <td>sun</td> </tr> <tr> <td>rock</td> </tr> </tbody> </table> <p> <input type="radio"/> Function <input type="radio"/> Not a Function </p>	Domain	Range	desk	-8	paper	sun	rock	<p>Relation 2</p> <table border="0"> <thead> <tr> <th>Domain</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>cloud</td> <td>c</td> </tr> <tr> <td>star</td> <td>s</td> </tr> <tr> <td>pencil</td> <td>d</td> </tr> <tr> <td>pen</td> <td>c</td> </tr> </tbody> </table> <p> <input type="radio"/> Function <input type="radio"/> Not a Function </p>	Domain	Range	cloud	c	star	s	pencil	d	pen	c
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3. Fill in the table using this function rule.

$$y = -5x + 2$$

x	y
-1	
0	
1	
2	

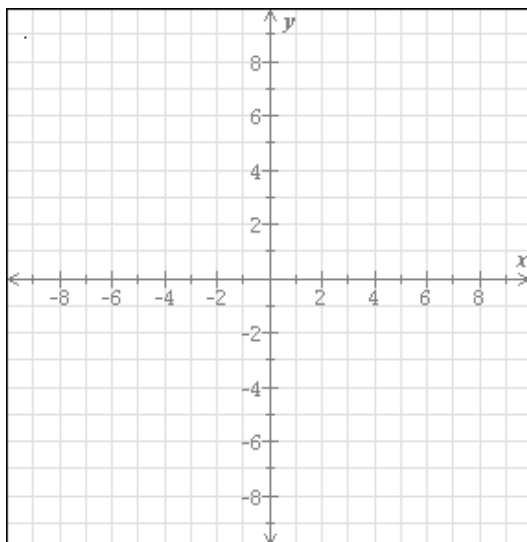
4. Solve.

$$(5y + 4)(1 + y) = 0$$

(If there is more than one solution, separate them with commas.)

5. Graph the parabola.

$$y = (x - 1)^2 - 3$$



6. Find the least common multiple of $10m^4$ and $8a^3$

7. Use the quadratic formula to solve for x .

$$2x^2 + 5x - 1 = 0$$

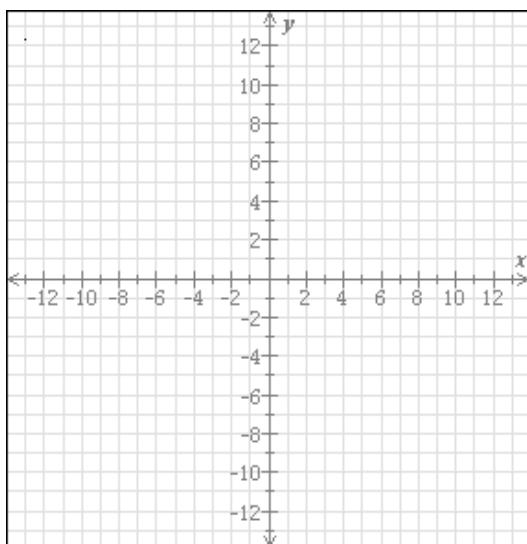
8. Solve for w

$$5w^2 = -17w - 6$$

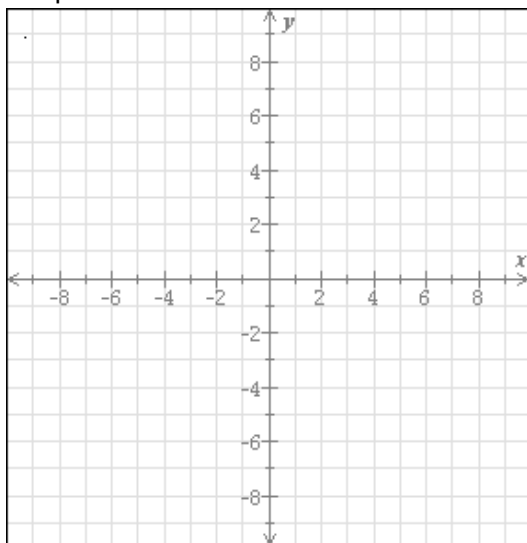
9. The sum of two numbers is 42 One number is 2 times as large as the other. What are the numbers?

10. Graph the parabola.

$$y = -3x^2$$



11. Graph the line $x = -1$



12. Simplify.

$$\sqrt{45}$$

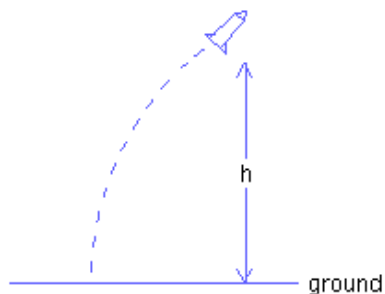
13. Find the least common multiple of $12w^3$ and $9y^4$

14. A model rocket is launched with an initial upward velocity of 235 ft/s. The rocket's height h (in feet) after t seconds is given by the following.

$$h = 235t - 16t^2$$

Find all values of t for which the rocket's height is 151 feet.

Round your answer(s) to the nearest hundredth.
(If there is more than one answer, use the "or" button.)



15. Solve for u

$$|u| - 16 = -8$$

Final Prep Quiz 2 #1 Answers for class Beginning and Intermediate Algebra Combined / MATH 102 - Fall 2014 – 504

1.
$$\frac{56u^6}{x^6}$$

2.

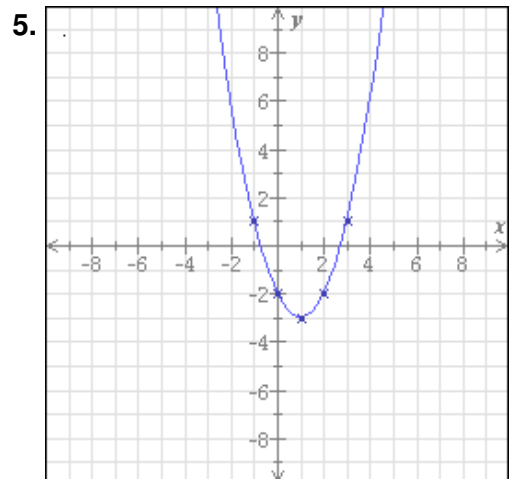
Relation 1		Relation 2	
Domain	Range	Domain	Range
desk	-8	cloud	c, s, d
paper		star	
sun		pencil	
rock		pen	
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Relation 3		Relation 4	
$\{(-3, -3), (-3, -4), (-3, 9), (-5, 0)\}$		$\{(k, k), (b, g), (g, k), (g, g)\}$	
<input type="radio"/> Function <input checked="" type="radio"/> Not a Function		<input type="radio"/> Function <input checked="" type="radio"/> Not a Function	

3.

x	y
-1	7
0	2
1	-3
2	-8

4. $y = -\frac{4}{5}, -1$

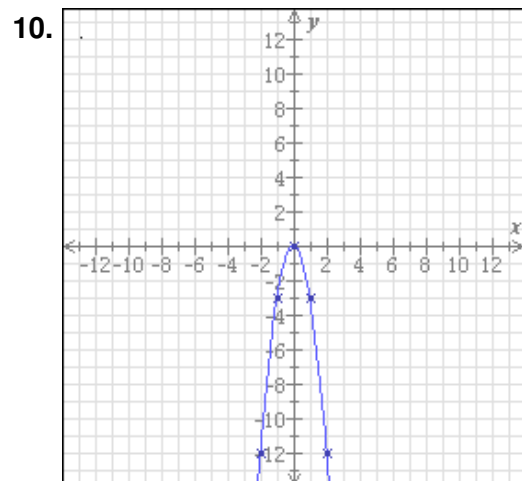


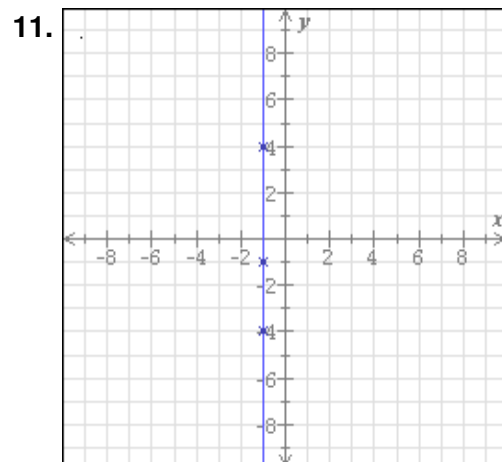
6. $40m^4a^3$

7. $\frac{-5 + \sqrt{33}}{4}, \frac{-5 - \sqrt{33}}{4}$

8. $-\frac{2}{5}, -3$

9. Larger number: 28
Smaller number: 14





12. $3\sqrt{5}$

13. $36w^3y^4$

14. $t = 0.67$ seconds
or $t = 14.01$ seconds

15. $u = 8, -8$