Algebra 1 ECA Remediation

Name\_

### Quiz 24.1 © 2014 Kuta Software LLC. All rights reserved. Sketch the solution to each system of inequalities.



# Simplify each expression.

3) 
$$(5v^2 - 5v^4 + 3) - (7v^2 - 4v^4 - 2v^3)$$
  
A)  $-v^4 + 2v^3 - 5v^2 + 3$   
B)  $-5v^4 + 2v^3 - 10v^2 + 3$   
C)  $-5v^4 + 2v^3 - 5v^2 + 3$   
D)  $-v^4 + 2v^3 - 5v^2 + 3$   
A)  $(8b^4 - 4 + 8b) + (3b - 6b^4 + 4)$   
A)  $2b^4 + 16b$   
C)  $2b^4 + 11b$   
D)  $2b^4 + 13b$ 

# Find each product.

5) (-4x-7)(2x-6)A)  $-8x^2 + 10x + 42$ B)  $-8x^2 - 38x - 42$ C)  $-8x^2 + 38x - 42$ D)  $20x^2 + 29x + 6$ 6)  $(5x+7)^2$ A)  $25x^2 - 49$ B)  $16x^2 + 40x + 25$ C)  $25x^2 + 49$ D)  $25x^2 + 70x + 49$ 

#### Find the slope, x-intercept, and y-intercept of the following.

7) 
$$x + 3y = 15$$
  
8)  $5x + 3y = 0$ 

A) 
$$m = -\frac{1}{3}$$
, x - int = 15, y - int = 5  
B)  $m = -3$ , x - int = 15, y - int = 5  
C)  $m = -\frac{1}{3}$ , x - int = 5, y - int = 3  
D)  $m = 5$ , x - int = 5, y - int = 15  
A)  $m = \frac{5}{3}$ , x - int = 0, y - int = 0  
C)  $m = \frac{3}{5}$ , x - int = 3, y - int = 5  
D)  $m = -\frac{5}{3}$ , x - int = 0, y - int = 0

# Name the x and y - intercepts

9) x = 4

A) 
$$x - int = 4$$
,  $y - int = 4$ A)  $x - int = 0$ ,  $y - int = -3$ B)  $x - int = none$ ,  $y - int = 4$ B)  $x - int = none$ ,  $y - int = -3$ C)  $x - int = 4$ ,  $y - int = none$ C)  $x - int = 3$ ,  $y - int = none$ D)  $x - int = -4$ ,  $y - int = 0$ D)  $x - int = 0$ ,  $y - int = 3$ 

10) y = -3

- 11. Matt's school is selling tickets to a play. On the first day of ticket sales the school sold 14 senior citizen tickets and 9 student tickets for a total of \$307.60. The school took in \$234.40 on the second day by selling 7 senior citizen tickets and 11 student tickets. Use a system of equations to determine the cost of one senior citizen ticket (C) and one student ticket (S)?
  - A) C = \$14, S = \$12.40
  - B) C = \$12.40, S = \$14
  - C) C = \$17, S = \$8.40
  - D) C = \$8.40, S = \$17

- 12. Suppose you invest \$750 in equipment to put pictures on T-shirts. You buy each T-shirt for \$3. After you have placed the picture on a shirt, you sell it for \$18. How many T-shirts must you sell to break even?
  - A) 36
  - B) 42
  - C) 50
  - D) 48