

Algebra 2 - Burrus Test #2 Review

Answers are online at www.charlieburrus.com/Westbury/ -- click on Algebra 2 Test Reviews

Solve the following equations:

1. $5n - 14 = 3n$
2. $4x + 19 = 3$
3. $3x + 14 = -3(x - 8) + 2(3x - 5)$
4. $2y - 7 + 3y = 7y - 20$

Solve and graph (on a number line) the following inequalities:

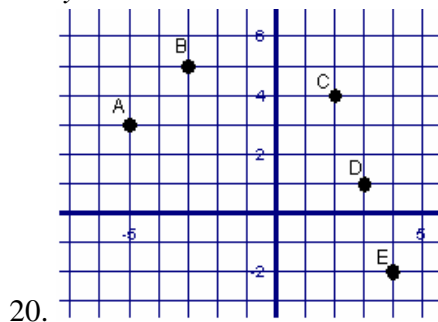
5. $2x - 5 \geq 1$
6. $-3 < 2x + 5 \leq 7$
7. $-14 \leq -4x + 10 < 42$
8. $2x + 3 < 6$ or $2x + 3 \geq 21$

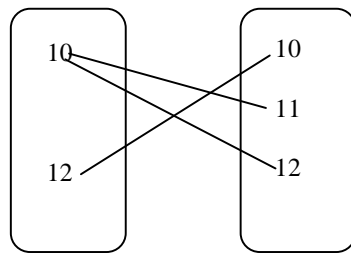
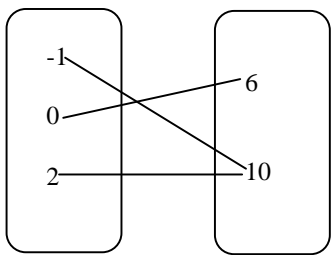
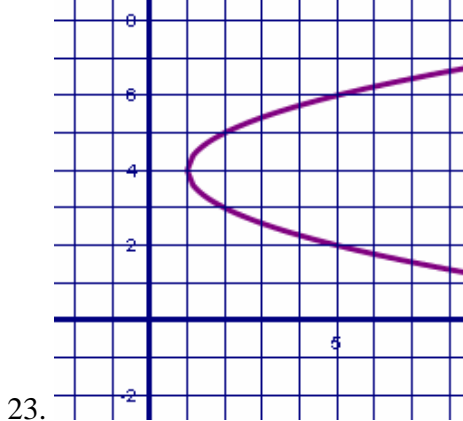
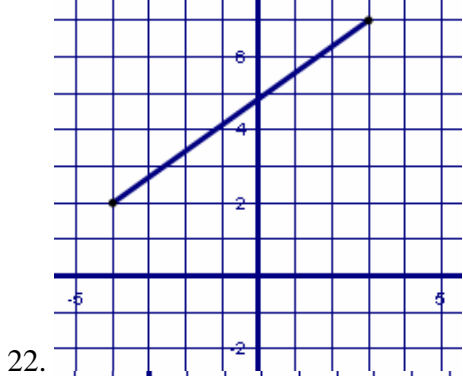
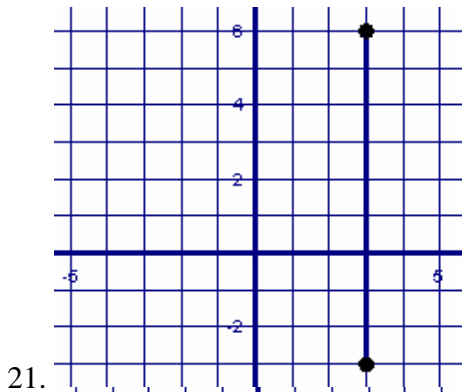
If $f(x) = -x^2 - x$ and $g(x) = 3x + 4$, then find the following:

9. $f(2)$
10. $g(-3)$
11. $f\left(\frac{1}{2}\right)$
12. $g(-1) + f(-2)$
13. $3f(4)$
14. $g\left(\frac{2}{3}\right)$

State the range and domain for each relation and tell whether or not it is a function.

15. $(3, 4), (6, 6), (4, 3)$
16. $(2, 3), (4, 3), (2, 4)$
17. $y + 3x = 4$
18. $y = x^2$
19. $y^2 = x$





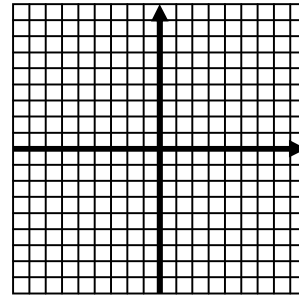
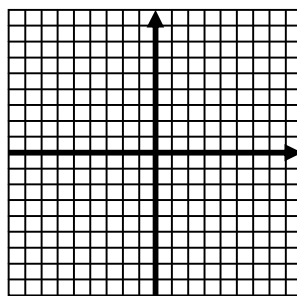
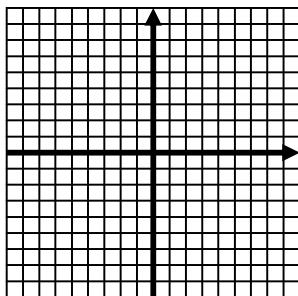
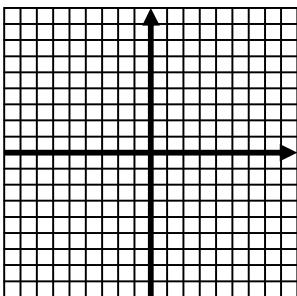
I. Graph each linear function.

1. $2x - 7y = 21$

2. $m = \frac{4}{3}; (-2, -4)$

3. $m = -\frac{2}{3}; \left(\frac{5}{2}, \frac{4}{3}\right)$

4. $\frac{5}{6}x - \frac{1}{3}y = -1$

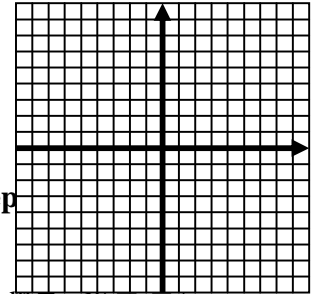
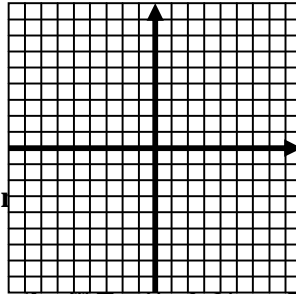
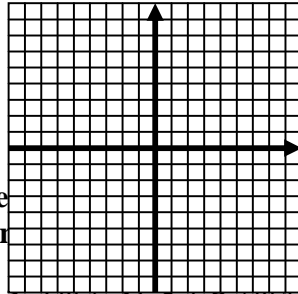
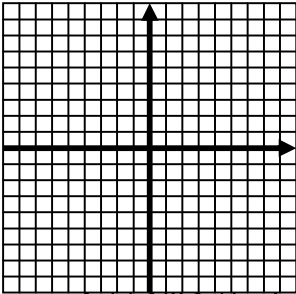


5. $\frac{4}{3}y = -2 + \frac{1}{2}y$

6. $5x - 1 = y$

7. $\frac{1}{6}x - \frac{2}{5}y = \frac{1}{3}$

5. $m = -\frac{3}{2}; (-1, -1)$



1. $(2, 5), (3, 7)$

2. $(-5, -1), (2, -5)$

3. $(-6, 7), (4, 0)$

4. $m = \frac{1}{2}, (-5, 5)$

5. $m = -5, (\frac{1}{4}, \frac{1}{6})$

6. parallel to $2x + 3y = 12$ but contains $(-5, -4)$

7. parallel to $\frac{1}{2}x - \frac{2}{3}y = -1$ but contains $(-2, 6)$

8. perpendicular to $2x - 5y = 12$ but contains $(\frac{1}{2}, \frac{2}{3})$

9. perpendicular to $\frac{2x - 3y}{4} = \frac{1}{3}$ but contains $(-2, 4)$

III. Write the equation given the parent function.

1. Parent function $y = x^2$ shift up 3 and to the left 2. _____

2. Parent function $y = x^2$ shift down 4 and to the right 6. _____

3. Parent function $y = |x|$ shift up 5 and to the left 7. _____

4. Parent function $y = |x|$ shift down 7 and to the right 9. _____

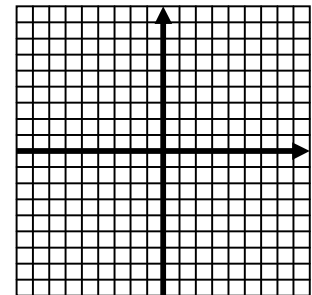
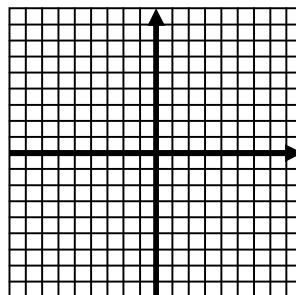
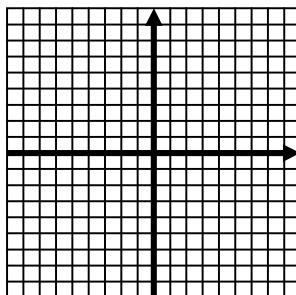
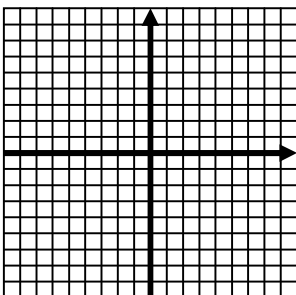
IV. Graph each inequality.

1. $y > -3x - 5$

2. $y \leq \frac{3}{4}x$

3. $3x - 4y \leq 6$

4. $-2y > -4x - 6$



VII. Write the equation of the line in slope intercept form pictured below.

