

Name:

Math Department: Summer Assignment for Students Entering Algebra II

The purpose of this assignment is to keep your math skills “fresh” over the summer. The assignment will be checked when you return to school. A quiz will be given on this material after classes begin.

If you would like additional practice, or tutorials on problems similar to those below, visit www.math.com (the most helpful categories will most likely be the “Algebra,” “Geometry,” & “Trigonometry” categories).

Also, you can refer to your notebook from previous math classes if you need additional help.

Answer each question. Show all work. If you need more room use a separate sheet of paper.

1. Evaluate $36 \div 9 - (4 + 1)^2 \cdot 2 + 7$.

2. Evaluate $-4x^2 + \frac{6x}{y}$ if $x = -2$ and $y = 4$.

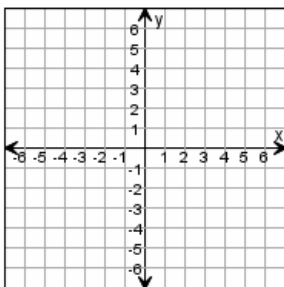
3. Solve: $4x + 21 = 7(x + 9)$

4. Solve: $\frac{2x}{5} - \frac{5}{3} = \frac{x}{15}$

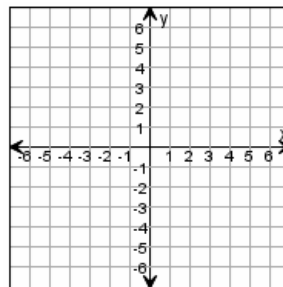
5. Solve for y : $ax + by + cz = d$

6. Solve and graph: $2x + 4 < 10$

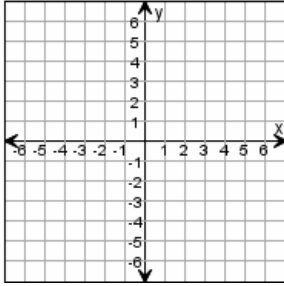
7. Graph: $y = -\frac{3}{2}x + 1$



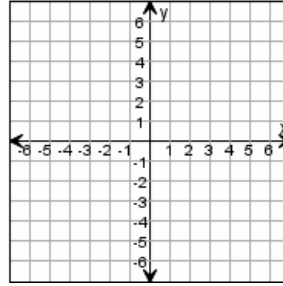
8. Graph: $2x - 5y = 10$



9. Graph: $y = 4$



10. Graph: $y > 2x - 3$



Write the equation of a line with the following characteristics.

11. slope: $\frac{1}{2}$,

y-intercept: -3

12. slope: $\frac{2}{3}$,

passes through $(-6, 6)$

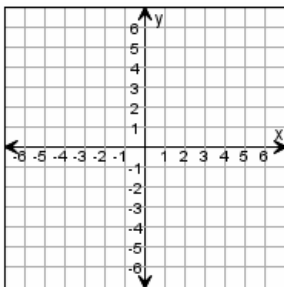
13. passes through $(-2, 5)$

and $(-6, 8)$

14. Solve the system by graphing.

$$x + y = 3$$

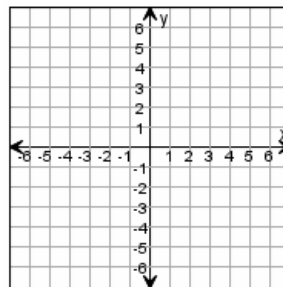
$$2x + 3y = 6$$



15. Graph the linear system of inequalities.

$$y \geq -3x - 1$$

$$y < x + 2$$



16. Solve the system using substitution.

$$x = -2y + 2$$

$$3x + 4y = -4$$

17. Solve the system using elimination.

$$2x - 4y = 13$$

$$4x - 5y = 8$$