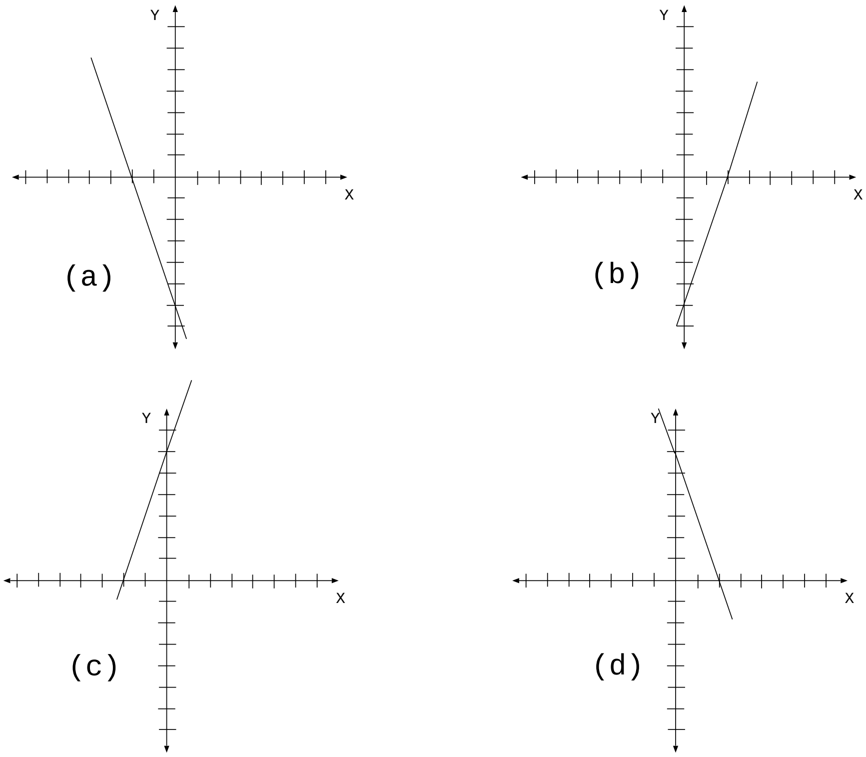
Math 042: Exam II	**Date: April 02, 2010**
Name: ________________________	**Section:** ____________

1. Which of the following is the graph of $3x + y = -6$?



2. What is the slope of the line given by the equation $x = -2$?
(a) 1 (b) 0 (c) -2 (d) undefined

3. Find the slope and the equation of the line that contains the point $(3, -1)$ and is **perpendicular** to the line $-2x - y = 4$.

Slope: ______________________________ .

Equation: ______________________________ .

4. Find the equation of the line passing through $(2, -5)$ and $(-3, 3)$.

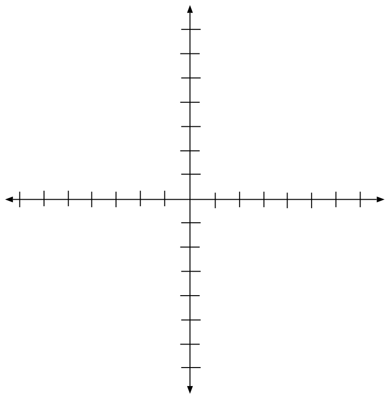
Equation: ____________________________ .

5. Solve the following system of equations.

$$\begin{aligned} 2x - y &= 1 \\ -3x + 2y &= 5 \end{aligned}$$

Your answer: ____________________________ .

6. Graph $2x + 3y > 6$.



7. Which of the following is an expansion of $(4x - 3y)^2$?

(a) $16x^2 + 9y^2$ (b) $16x^2 - 9y^2$ (c) $16x^2 - 12xy + 9y^2$ (d) $16x^2 - 24xy + 9y^2$

8. Expand $(x + 3)^3$.

Your answer: __________________________ .

9. $y - 36y^3 =$ ______________________________ .

10. Factor $bx - by - 7x + 7y$.

Your answer: ______________________________ .

11. Simplify $\frac{(2x^{-3}y)^3}{2x^{-2}y^2}$.

Your answer: ______________________________ .

12. Factor $2x^2 - x - 10$.

Your answer: ______________________________ .

13. Solve $x^2 + 2x - 8 = 0$.

Your answer: ________________________________ .

14. Which one of the following is a factor of $8x^2 - 40x$?

(a) $8x^2$ (b) $x^2 - 5$ (c) $x - 5$ (d) $x^2 - 5x$

15. $(\frac{3}{2})^{-3} =$ ________________________.

(a) $-\frac{8}{27}$ (b) $\frac{8}{27}$ (c) $-\frac{27}{8}$ (d) $\frac{27}{8}$