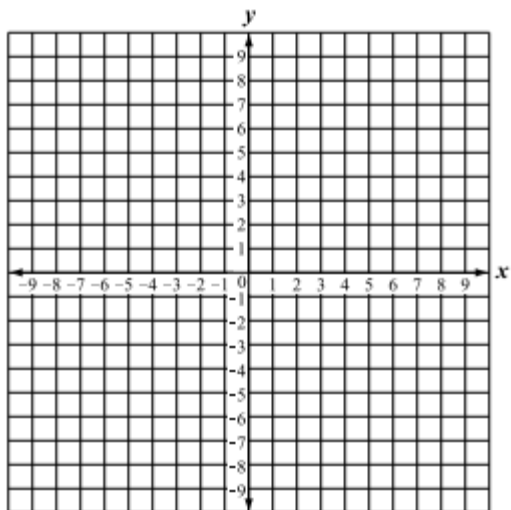
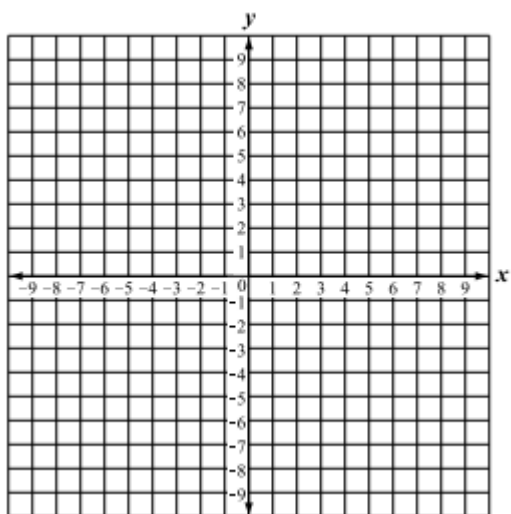


Math 011 Exam 3 Study Guide

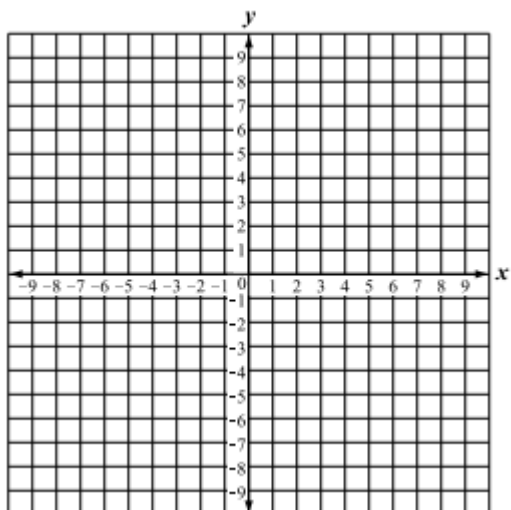
- #1 Sketch a graph of the equation $y = \frac{1}{3}x - 2$



- #2 Sketch a graph of the equation $4x - 3y = 24$



- #3 Sketch a graph of the equation $y = -3x + 1$



Write the equations for the lines described below. For extra practice, sketch a graph of each line.

#4 The line with a slope of -4 that passes through $(2, 2)$

#5 The line that passes through $(0, 2)$ and $(-2, 2)$

#6 The line that is perpendicular to $y = 2$ and passes through $(4, 5)$

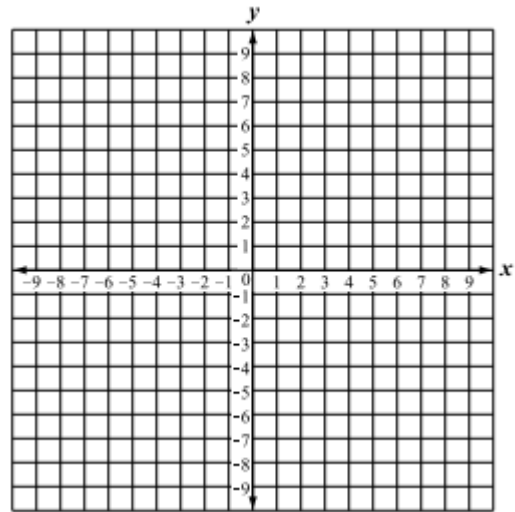
#7 The line parallel to $4y - 3x = 12$ and passing through the point $(4, 0)$.

#8 The line perpendicular to $4y - 3x = 12$ and passing through the origin.

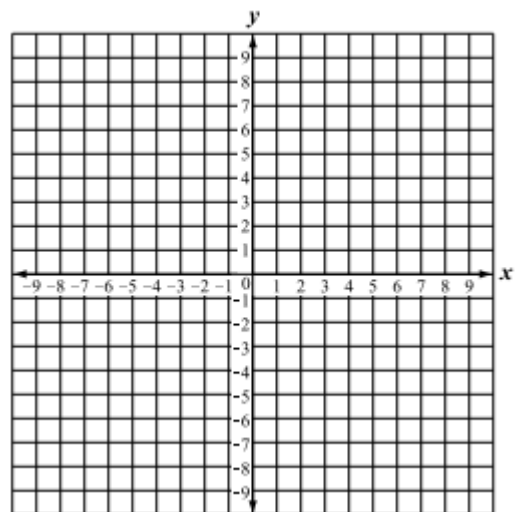
#9 The line passing through the points $(3, -2)$ and $(1, 6)$.

Sketch a graph of the linear inequalities given below.

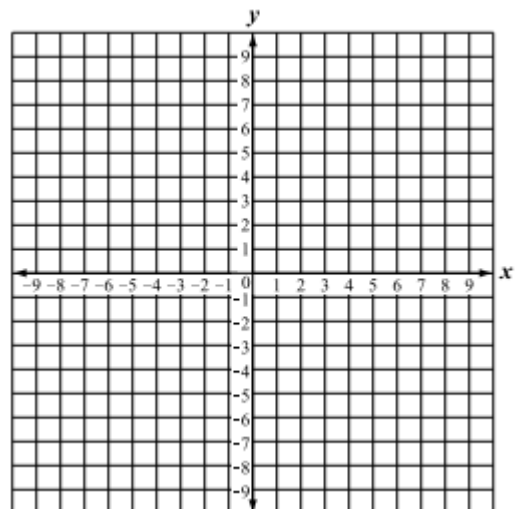
#10 $x > 3$



#11 $y < 3x - 2$



#12 $y \geq -2x$



Evaluate the following exponential expressions.

#13 $x^6 \cdot x^3$

#14 $(y^3)^6$

#15 $x^8 \div x^7$

#16 $(-3)^3$

#17 6^{-2}

#18 $(-8)^0$

Useful Formulas and Equations

Slope of the line between two points: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Slope-Intercept form of a linear equation: $y = mx + b$

Point-Slope Equation of a line: $(y - y_1) = m(x - x_1)$

Equation of a vertical line: $x = a$

Equation of a horizontal line: $y = b$