

Math 10 Xmas Flashback #2

1. Write the equation for the line that goes through $(7, -2)$ and has a slope of $\frac{3}{4}$.
Write the equation in all 3 versions (point-slope, general and slope y-intercept form)
2. What is the slope of the line between the points $(3, 4)$ and $(-6, 2)$? Is this increasing or decreasing? What is the slope that is parallel to it? Perpendicular? Give one other "nice" that is collinear to the given two points.

3. Simplify: $\left(\frac{3x^4y}{x^7y^{-2}}\right)^{-2}$

4. Graph the following lines on the grid:

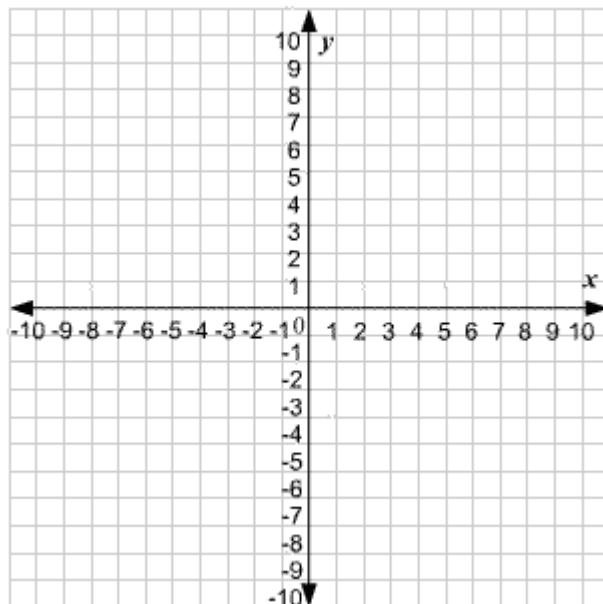
$$y = -\frac{2}{3}x + 7$$

$$x = 4$$

$$x + 5y - 10 = 0$$

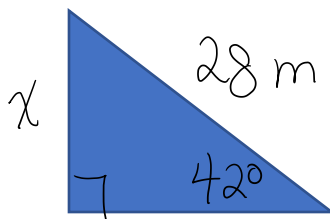
$$-3(x + 1) = y - 4$$

$$y = -2$$



5. Create a system that has a solution of $(3, 1)$. Check your solution with desmos.

6. Determine the missing side:



7. Factor completely: $2x^2 + 10x - 28$

8. If $h(x) = -4x - 3$, determine $h(11)$ and $h(x) = -9$