1. Simplify each expression and write with only positive exponents

(a) (2 points)
$$\left(\frac{x^3}{-27y^{-6}}\right)^{-2/3}$$

(b) (2 points)
$$(x^2y^{-3})(x^{-5}y^3)$$

2. (5 points) Find the real roots of $4t^2 + 2t - 2$ by factoring.

3. (a) (5 points) Find the equation of the line passing through the points (1,4) and (3,-12).

(b) (1 point) What are the x and y intercept for the line in the previous question?

(c) (5 points) Draw the line on the xy-coordinate system. Points will be taken off for sloppy drawing. Label axis and important points.