Top 10⁺ V8

Thursday, May 22, 2014

1) Simplify $-3^2 - 12 + (8 + 6 \div 2)$

2) Simplify $2(x - 7) - 5(3x + 2) - 13$

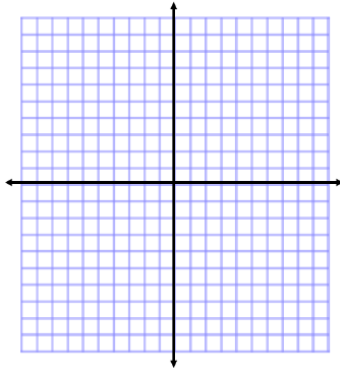**3) Solve** $-\dfrac{2}{3}x + 5 = \dfrac{7}{2}$

4) Solve and graph on a number line

$$3(2x - 1) + x < 13 + 5x$$

5) Graph the linear equation

$y = -\dfrac{2}{5}x + 6$

6) Identify the *slope* and *y-intercept* of the linear function

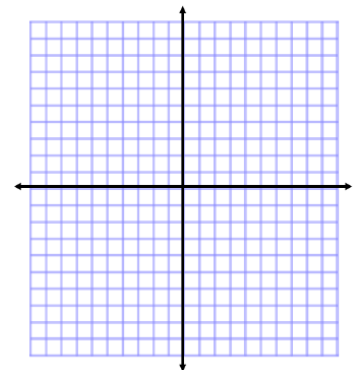$$-2x - 3y = 15$$

7) Solve the system of linear equations

$2x - 4y = 10$

$3x + 4y = 5$

8) Graph the system of linear inequalities
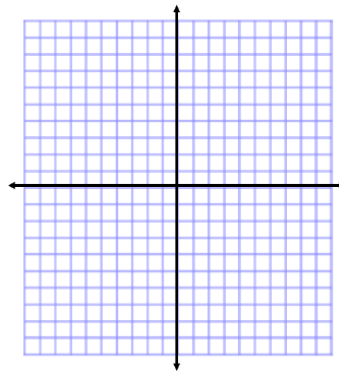
$y < x$

$y \geq -3$

9) **Find the zeroes of the quadratic function**

$$0 = 2x^2 + 9x - 18$$

10) **Graph the quadratic function**

$$y = 2x^2 + 8x$$

11) **Simplify the radical**

$$5\sqrt{24}$$

12) **Multiply the polynomial**

$$(x + 3)(x - 7)$$

13) What is the probability of rolling an odd number **or** a multiple of 3 an a fair six sided die?

14) **Simplify using only positive exponents**

$$\frac{-2x^3y^2}{4x^5y^{-4}z^0}$$

15) Write the equation of the line in *slope-intercept* form that passes through the points (1 , 2) and (-3 , 10)