Algebra 1 - Mr. Cantlin Name_____

Semester 1 Exam Practice - 12-12-08

Date_____ Period____

Solve each equation.

1) $-2v + 2 = 2(1 + 4v)$

2) $6 - 3(3 - 2m) = -18 + 3m$

3) $-12 - 6x = 4(6x - 3)$

4) $4(4a + 4) - 8 = 19 + 5a$

Simplify. Your answer should contain only positive exponents.

5) $\left(\frac{vu^{-4}}{-vu^4 \cdot -u^3v^{-3}}\right)^3$

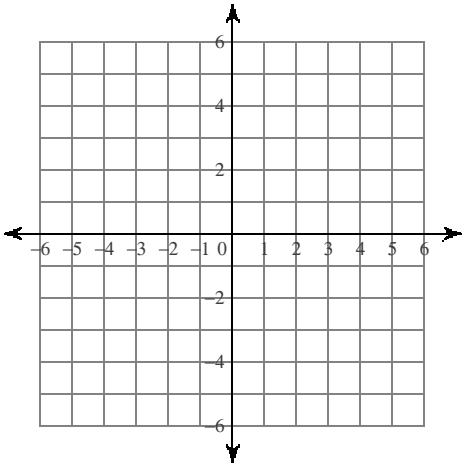
6) $\frac{(-u^5)^3}{v^{-4} \cdot -uv}$

7) $\left(\frac{-x^5y^0 \cdot -x^5y^{-1}}{-x^{-1}y^{-2}}\right)^{-3}$

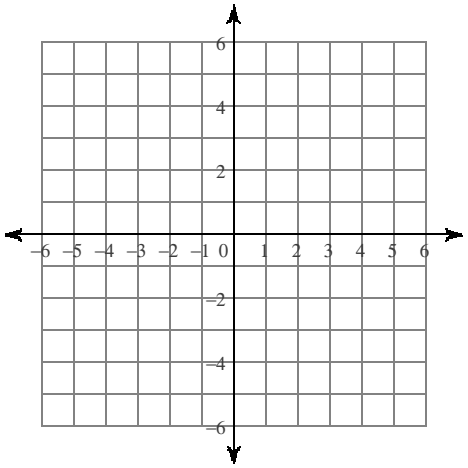
8) $\frac{(-a^3)^5}{a^{-3}b^5 \cdot (-a^4b^3)^3}$

Sketch the graph of each line.

9) $y = \frac{7}{2}x - 5$

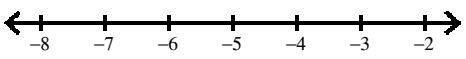


10) $y = 2x - 2$

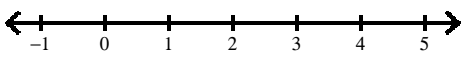


Solve each inequality and graph its solution.

11) $-4(x - 6) \geq 29 - 3x$



12) $-10 + 5n \leq 3(7 - 8n) - 2$



Write the slope-intercept form of the equation of the line through the given points.

13) through: $(1, 4)$ and $(5, 5)$

14) through: $(-2, -2)$ and $(-2, -3)$

Solve using a system of linear equations.

15) The difference of two numbers is 2. Their sum is 10. What are the numbers?

16) The sum of two numbers is 14. Their difference is 2. Find the numbers.

Answers to Semester 1 Exam Practice - 12-12-08 (ID: 1)

1) $\{0\}$

2) $\{-5\}$

3) $\{0\}$

4) $\{1\}$

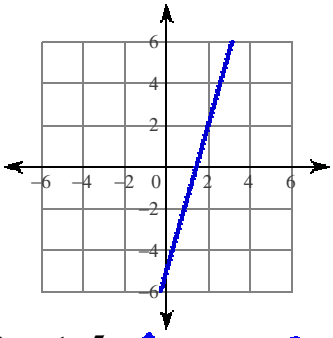
5) $\frac{v^9}{u^{33}}$

6) v^3u^{14}

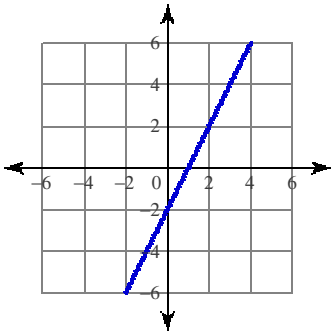
7) $-\frac{1}{x^{33}y^3}$

8) $\frac{a^6}{b^{14}}$

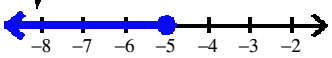
9)



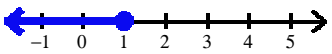
10)



11) $x \le -5$:



12) $n \le 1$:



13) $y = \frac{1}{4}x + \frac{15}{4}$

14) $x = -2$

15) 4 and 6

16) 6 and 8