Algebra 1 Review Week 2 Name_____

Teacher Name:_____ Period____

You must show work to receive credit.

Solve each system by elimination.

1) $2x + 2y = -20$
$7x - 2y = 2$

2) $-2x - 9y = -30$
$2x - y = -10$

3) $10x + 3y = -26$
$4x + 6y = 28$

4) $2x + 2y = -8$
$-x - y = 4$

Solve each system by substitution.

5) $-5x + 2y = 24$
$y = 7x + 21$

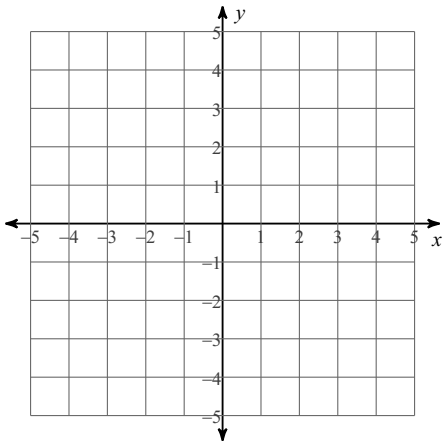
6) $y = 2x + 6$
$8x - y = -18$

7) $2x + y = -11$
$4x + 2y = -22$

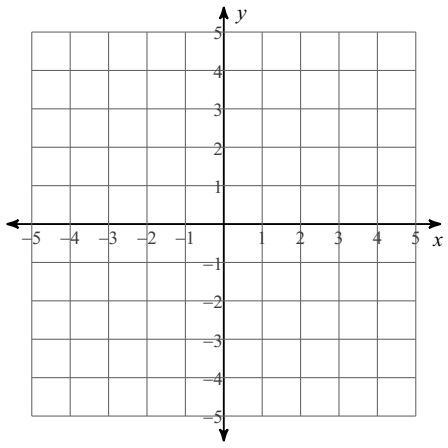
8) $x - y = -4$
$-5x + 3y = 4$

Solve each system by graphing.

9) $y = \frac{1}{2}x - 4$
$y = -\frac{3}{2}x + 4$



10) $y = 2x - 1$
$y = 2x - 4$



Simplify. Your answer should contain only positive exponents.

11) $\left(x^{-1}y^{-2}\right)^3 \cdot 3y^3$

12) $\left(x^{-2}y^{-2}\right)^{-3} \cdot 3y^3$

13) $\left(u^3v^2\right)^0 \cdot 3vu^2$

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

Write each number in scientific notation.

15) 0.26

16) 2400

Simplify each expression.

17) $\left(b^3 + b^2 - 3b\right) - \left(5b + 5b^2 + 3b^3\right)$

18) $\left(5r^2 - 6r + 2r^4\right) - \left(7r - r^4 - 8\right)$

Find each product.

19) $(a - 1)(a - 2)$

20) $(6r - 4)(8r - 8)$

21) $(x + 8)^2$

22) $(a + 6)(a - 6)$

Factor the greatest common factor out of each expression.

23) $20x^4 - 20x + 30$

24) $6b^2 + 6b^3 - 9b^9$

Factor each completely. GCF's first and then use your diamonds.

25) $a^2 + 9a$

26) $x^2 + 7x$

27) $3r^2 - 33r + 54$

28) $m^2 - 8m - 20$

Factor each completely.

29) $4k^2 - 13k + 3$

30) $12x^2 - 33x - 135$