

_____ out of 23 = _____%

Name _____

Practice Mid-Year Test

Do your best. We will grade this, but I will not see or record your scores.

This is information for YOU to help you to prepare for your midyear.

You have 30 minutes. We will grade each questions right or wrong at the end.

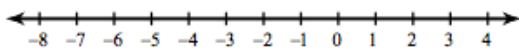
Solve:

$$20) -5(1 - 5x) + 5(-8x - 2) = -4x - 8x$$

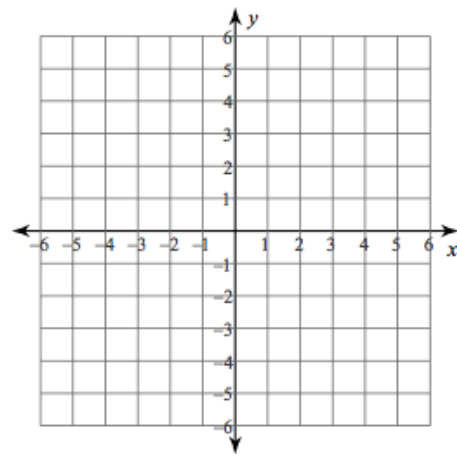
$$21) \frac{1}{3} = n + \frac{4}{3}$$

Solve each inequality and graph its solution.

$$8) |10 + 4x| < 14$$



$$10) 5x - 3y \leq -15$$



Write the standard form of the equation of the line.

$$2) (1, -19), (-2, -7)$$

$$17) \text{ through: } (4, 2), \text{ parallel to } y = -\frac{3}{4}x - 5$$

Find the slope of the line:

8) $4x + 5y = -10$

Solve the system using elimination:

9) $5x + y = 9$
 $10x - 7y = -18$

Solve the system using substitution:

1) $y = 6x - 11$
 $-2x - 3y = -7$

5. $f(x) = x - 3$ and $g(x) = x^2 + 2$

Find $f(g(-2))$

System of Equation Word Problem:

- 4) A class of 195 students went on a field trip. They took 7 vehicles, some cars and some buses. Find the number of cars and the number of buses they took if each car holds 5 students and each bus hold 45 students.

Simplify the expression

1) $(7r^2 + 3) - (6r^2 + 5)$

5) $(x - 4)^2$

22) $(n^2 + 6n - 4)(2n - 4)$

Factor Completely

26) $6v^2 + 66v + 60$

3) $12x^3 + 2x^2 - 30x - 5$

1) $16n^2 - 9$

Factor, and then solve for the variable.

1) $3p^2 - 2p - 5 = 0$

6) $n^2 = -18 - 9n$

Simplify. Your answer should contain only positive exponents.

1) $2m^2 \cdot 2m^3$

15) $(3k^4)^4$

6) $2x^3y^{-3} \cdot 2x^{-1}y^3$

30) $\frac{3x^3y^{-1}z^{-1}}{x^{-4}y^0z^0}$

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Do your best. We will grade this, but I will not see or record your scores.**This is information for YOU to help you to prepare for your midyear.****You have 30 minutes. We will grade each questions right or wrong at the end.**

Solve:

20) $-5(1 - 5x) + 5(-8x - 2) = -4x - 8x$

 $\{-5\}$

21) $\frac{1}{3} = n + \frac{4}{3}$

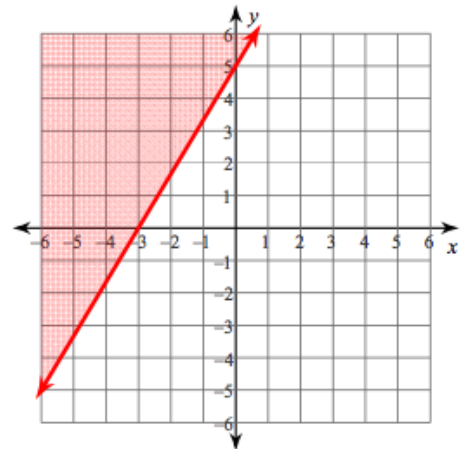
 $\{-1\}$ **Solve each inequality and graph its solution.**

8) $|10 + 4x| < 14$



$-6 < x < 1$

10) $5x - 3y \leq -15$

**Write the the equation of the line.**

2) $(1, -19), (-2, -7)$

$m = -4$ so...

$y + 19 = -4(x - 1)$

or

$y + 7 = -4(x + 2)$

17) through: $(4, 2)$, parallel to $y = -\frac{3}{4}x - 5$

$y - 2 = -\frac{3}{4}(x - 4)$

Find the slope of the line:

8) $4x + 5y = -10$

$$-\frac{4}{5}$$

Solve the system using elimination:

9) $5x + y = 9$
 $10x - 7y = -18$

$$(1, 4)$$

Solve the system using substitution:

1) $y = 6x - 11$
 $-2x - 3y = -7$

$$(2, 1)$$

5. $f(x) = x - 3$ and $g(x) = x^2 + 2$

Find $f(g(-2))$

$$g(-2) = 6 \text{ so...}$$

$$f(g(-2)) = 3$$

System of Equation Word Problem:

- 4) A class of 195 students went on a field trip. They took 7 vehicles, some cars and some buses. Find the number of cars and the number of buses they took if each car holds 5 students and each bus hold 45 students.

3 cars and 4 buses

Simplify the expression

1) $(7r^2 + 3) - (6r^2 + 5)$

$$r^2 - 2$$

5) $(x - 4)^2$

$$x^2 - 8x + 16$$

22) $(n^2 + 6n - 4)(2n - 4)$

$$2n^3 + 8n^2 - 32n + 16$$

Factor Completely

26) $6v^2 + 66v + 60$

$$6(v + 10)(v + 1)$$

3) $12x^3 + 2x^2 - 30x - 5$

$$(2x^2 - 5)(6x + 1)$$

1) $16n^2 - 9$

$$(4n + 3)(4n - 3)$$

Factor, and then solve for the variable.

1) $3p^2 - 2p - 5 = 0$

$$(3p - 5)(p + 1)$$

so... $p = -1$ or $5/3$

6) $n^2 = -18 - 9n$

$$\{-6, -3\}$$

Simplify. Your answer should contain only positive exponents.

1) $2m^2 \cdot 2m^3$

$$4m^5$$

15) $(3k^4)^4$

$$81k^{16}$$

6) $2x^3y^{-3} \cdot 2x^{-1}y^3$

$$4x^2$$

30) $\frac{3x^3y^{-1}z^{-1}}{x^{-4}y^0z^0}$

$$\frac{3x^7}{yz}$$