Do Now

1) Solve and Check

6(f + 5) + 8 = 2f

$6f + 30 + 8 = 2f$

$\cancel{6f} + 38 = 2f$

$-\cancel{6f} \quad -6f$

$\frac{38}{-4} = \frac{-4f}{-4}$

$-9.5 = f$

$6(f+5)+8=2f$

$6(9.5+5)+8=2(-9.5)$

$6(-4.5)+8=-19$

$-27+8=-19$

$-19=-19$ ✓

2) Johnny wants to ship a package to his friend. A shipping company charges $2.49 for the first pound and $1.24 for each additional pound. If it cost Johnny $11.17 to ship the package, how much did his package weigh?

Let w = each additional lb.

$1.24w + \cancel{2.49} = 11.17$

$-2.\cancel{49} \quad -2.49$

$\frac{\cancel{1.24}w}{\cancel{1.24}} = \frac{8.68}{1.24}$

$w = 7$

original

7 + 1

8 total lbs.

Apr 8-7:29 PM

Homework Answers

1. A 2. C 3. C 4. D 5. C 6. B 7. D

8. (-3, -1) 9. No Solution 10. (-3, 2)

11. (1, 1) 12. (2, 7) 13. (12, 6) 14. (3, -1)

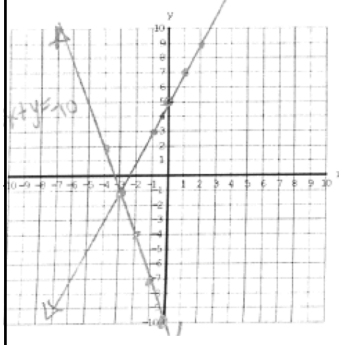
15. 14 & 22

16. Hamburger $0.75 Milk Shake $0.55

4) 3x + y = -10
y = 2x + 5

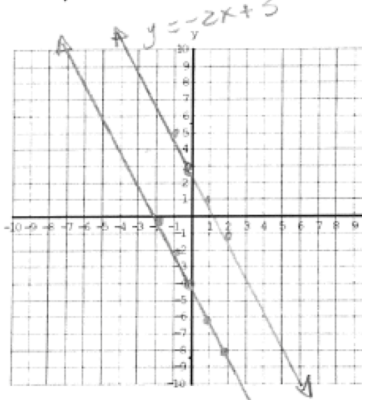
$y = -3x - 10$

$y = 2x + 5$



5) y = - 2x + 3
y = -2x – 4

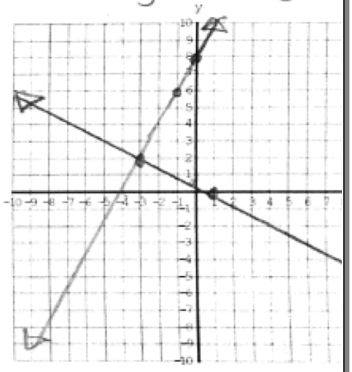
$y = -2x + 3$



6) x + 2y = 1
-2x + y = 8

$y = -\frac{1}{2}$

$y = 2x + 8$



May 31-7:32 AM

- Exponent Rules
  - > Multiplication
  - > Division
  - > Power to a Power
  - > Negative Exponents
- Polynomial Operations
  - > Addition (Combine Like Terms)
  - > Subtraction (Distribute -1 then Add)
  - > Multiplication
    - – Monomial x Monomial
    - – Monomial x Polynomial (Distributive)
    - – Polynomial x Polynomial (Box)
  - > Division
    - – Polynomial by a Monomial
  - > Geometric Applications
    - – Perimeter
    - – Area

Jun 4-9:03 PM

The Rules of Exponents

PRODUCT RULE $x^a \cdot x^b = x^{a+b}$

Multiply coefficients
Add exponents
of like bases

Examples

1. $h^2 \cdot h^6 = h^8$

2. $(-2a^2b) \cdot (7a^3b) = -14a^5b^2$

Jan 4-4:27 PM

The Rules of Exponents

POWER RULE

$(x^a)^b = x^{ab}$

"Distribute" the outside exponent to each coefficient & variable

Multiply the exponents

1. $(x^2)^3 = x^6$

2. $(-2m^5)^2 \cdot m^3 = (-2)^2 m^{10} \cdot m^3$

$4m^{10} \cdot m^3$

$4m^{13}$

Jan 4-4:27 PM

The Rules of Exponents

QUOTIENT RULE

$\frac{x^a}{x^b} =$

Divide/Simplify coefficients

Subtract exponents of like variables

1. $\frac{27x^5}{42x} = \frac{9x^4}{14}$ or $\frac{9x^4}{14}$

2. $\frac{(y^2)^2}{y^4} = \frac{y^4}{y^4} = y^0 = 1$

Jan 4-4:27 PM

The Rules of Exponents

NEGATIVE EXPONENT RULE

$$x^{-a} = \frac{1}{x^a}$$

Circle the base that has a negative exponent.
Move the base to the denominator & make the exponent positive

1. $-5x^{-2} = -5 \cdot \frac{1}{x^2} = \frac{-5}{x^2}$

2. $\frac{4k^2}{8k^5} = \frac{1}{2}k^{-3} = \frac{1}{2} \cdot \frac{1}{k^3} = \frac{1}{2k^3}$

Jan 4-4:27 PM