

January 30, 2017

$$x^2 - 2xy + y^2; x = -3, y = 2$$

$$\boxed{(-3)^2} - 2(-3)(2) + (2)^2$$

$$9 + 12 + 4$$

$$25$$

Jan 30-9:02 AM

$$\frac{a+b}{c-d}$$

$a = 38$   
 $b = 42$   
 $c = 10$   
 $d = 50$

$$\frac{(38) + (42)}{(10) - (50)}$$

$$= \frac{80}{-40}$$

$$= -2$$

Jan 30-9:19 AM

1.3 Rational Numbers -  $\mathbb{Q}$

$$\mathbb{Q} = \left\{ \frac{a}{b} \mid a \neq b \in \mathbb{Z} \neq b \neq 0 \right\}$$

Jan 30-9:22 AM

0  $\longleftrightarrow$  1

Fundamental Principle of Fractions

$$\frac{a}{b} \cdot \frac{c}{c} = \frac{ac}{bc}$$

"one" =  $\frac{a}{b} \cdot 1$

Multiplicative Identity

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

Jan 30-9:26 AM

Equivalent Fractions

$$\frac{a}{b} \cdot \frac{c}{c} = \frac{ac}{bc}$$

simplify

Jan 30-9:35 AM

Greatest Common Divisor (GCD)  
(Denominator)

$$GCD(a, b) = ?$$

Jan 30-9:38 AM

$\boxed{\text{GCD}}(32, 40) = 8$

↓  
 we're looking for the largest number that divides our numbers.

$32 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 2^5$

$40 = 2 \cdot 2 \cdot 2 \cdot 5$

$32 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$   
 $40 = 2 \cdot 2 \cdot 2 \cdot 5$

$32 = 2 \cdot 16$   
 $16 = 2 \cdot 8$   
 $8 = 2 \cdot 4$   
 $4 = 2 \cdot 2$

$40 = 2 \cdot 2 \cdot 2 \cdot 5$   
 $20 = 2 \cdot 10$   
 $10 = 2 \cdot 5$

$8$

Jan 30-9:41 AM