

1. What is a set? Write down an example of sets.

2. Graph the two sets: $\{x \mid x > 3\}$ and $\{x \mid x \geq 3\}$. Are they different? If so, how?

3. Graph the following.

(a) $(-1, \infty)$

(b) $[3, 7)$

(c) $(-\infty, 0) \cup [2, \infty)$

Guided Notes 1A

Due date: 5/15/2018

Topic: Laws of Exponents

What are the Laws of Exponents? Write down each one and make an example.

- Law #1: $a^m \cdot a^n = a^{m+n}$. Example: $2^5 \cdot 2^4 = 2^9$.
- Law #2:

- Law #3:

- Law #4:

- Law #5:

- Law #6:

Simplify the following.

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

2. $\left(\frac{x}{y^{-1}z^2}\right)^3$

3. $(5x^2y^{-2}) \cdot (-3y/x^5)$

Guided Notes 1A

Due date: 5/15/2018

Topic: Simplifying Algebraic Terms

Simplify the following.

1. $(3x^2 + 5x - 11) + (2x^2 - 3x - 9)$

2. $(-6y^2 + 3y) - (2y^2 + 15)$

3. $(x - 5)(x + 6)$

4. $(2t + 1)(t - 9)$

5. $(x - 4)^2$

6. $(2x + 5)(2x - 5)$

Guided Notes 1A

Due date: 5/15/2018

Topic: Factoring

Factor the following

1. $3t^2 + 9t$

2. $x^2 - 8x - 20$

3. $x^2 + 12x + 35$

4. $9x^2 - 16$