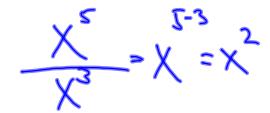
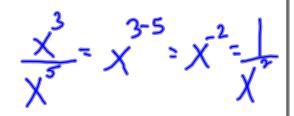
## **Algebra 8-7: Quotients of Powers**

## Warm-Up

- 1. Simplify.  $(y^5)^4$
- 2. Simplify. x<sup>3</sup>y<sup>6</sup>z<sup>2</sup>(xy<sup>0</sup>z<sup>5</sup>) 5
- 3. Simplify.  $\frac{x \cdot x \cdot x \cdot x}{x \cdot x} = x^2$
- 4. Simplify. XXXX XXX





Property	Definition	Exar	mple	
Quotient of Powers	20,0	6 m-n	X	8-5 - X

Remember...

- · When in doubt, write it out!
- When in doubt, which is a contraction of the variables, coefficients (educe them.)

4x = 2 x

## **Examples**

Simplify. Write without negative exponents.

1. 
$$\frac{X^{15}}{X^8} = X$$

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2. 
$$\frac{y^{31}}{y^{60}} = y$$

$$5.\frac{8^{12}}{8^8} = 8^{12-8}$$

$$= 5^{-4} = 5^{4}$$

$$= \frac{1}{625}$$

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$$\frac{x^{19}}{x^8} = \sqrt{19-8}$$

