

Using the Commutative Property

- Like terms - terms with exactly the same variable factors
- Variable - a letter that stands for a number
- Coefficient - the numerical factor in a term containing a variable

Power - tells the number of times a base is used as a factor; same as exponent

Simplify the expression...

$$-3x^2 \cdot 5x^4$$

$$-1 \cdot 3 \cdot x^2 \cdot 1 \cdot 5 \cdot x^4$$

$$-1 \cdot 3 \cdot 1 \cdot 5 \cdot x^2 \cdot x^4$$

$$-15 \cdot x^{2+4}$$

$$-15 \cdot x^6$$

$$\boxed{-15x^6}$$

Quick Check

Simply each expression.

$$2a^2 \cdot 3a$$

$$6a^3$$

$$x^{10} \cdot x^3$$

$$x^{10+3} = x^{13}$$

$$-4y^5 \cdot -3y^5$$

$$12y^{10}$$

$$12^t \cdot 12^d$$

$$\boxed{12^{t+d}}$$

$$2^x \cdot 2^3$$

$$\boxed{2^{x+3}}$$

Exit Pass

1. Write $(-8)^4 \cdot (-8)^5$ using a single exponent.

$$(-8)^9$$

2. Simplify the expression $3m^4 \cdot 6m^8$.

$$18m^{12}$$

3. Find the area of a rectangle that has a length of $7a^4b^2$ cm and width of $3ab$ cm.

$$21a^5b^3 \text{ cm}^2$$



Assignment

8th Grade Lesson 6-2b

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