

# Multiplying Monomials

**Bell Work:**

- 1. What type is this linear function?  $y - 5 = \frac{2}{5}(x + 8)$**
- 2. What is the slope of a line that goes through (11, -6) and (-5, 10)?**
- 3. What is the slope of a line with an equation of  $3x - 5y = -20$ ?**
- 4. What equation for the linear parent function?**

# Multiplying Monomials

**What is a monomial?**

**It is a number, a variable, or a combination of a number and 1 or more variables.**

***Examples:***

**1.**  $-2.3$

**2.**  $x$

**3.**  $52a$

**4.**  $8xy$

**5.**  $-3m^2n$

**6.**  $147u^3v^4$

**7.**  $4.9a^6b^4c^3$

**8.**  $-g^3h^7j^2k^2m^5np^9q^3$

# Multiplying Monomials

**Multiply each set of monomials.**

**1.**  $(5a)(9b) = 45ab$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. If they are different, put the variables in alphabetically order.*

**2.**  $(-3c)(-12d) = 36cd$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. If they are different, put the variables in alphabetically order.*

# Multiplying Monomials

**Multiply each set of monomials.**

3.  $(7e)(-4e) = -28e^2$

1. *Multiply the coefficients.*
2. *Multiply the variables. If they are different, put the variables in alphabetically order.*

$$(2)(2) = 2^2 = 4$$

$$(e)(e) = e^2$$

4.  $(8f)(6f) = 48f^2$

1. *Multiply the coefficients.*
2. *Multiply the variables. If they are different, put the variables in alphabetically order.*

# Multiplying Monomials

**Multiply each set of monomials.**

**5.**  $(5g)(-4h)(3g) = -60g^2h$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. If they are different, put the variables in alphabetically order.*

**6.**  $(4j)(-12k)(-k) = 48jk^2$

$$(-k) = (-1k)$$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. If they are different, put the variables in alphabetically order.*

# Multiplying Monomials

**Multiply each set of monomials.**

**7.**  $(-7m)(-4n)(5m^2)(9n) = 1,260m^3n^2$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. Add the exponents. If they are different, put the variables in alphabetically order.*

**8.**  $(6p)(-6q)(-3p)(4p^2) = 432p^3q^2$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. Add the exponents. If they are different, put the variables in alphabetically order.*

# Multiplying Monomials

**Multiply each set of monomials.**

**9.**  $(-10rt)(4t)(-7r^2)(-4rt^2)(3t) = -3,360r^4t^5$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. Add the exponents. If they are different, put the variables in alphabetically order.*

**10.**  $(-2u^2)(9v)(-6uv^2)(-7v^2)(-4uv) = 3,024u^4v^6$

- 1. Multiply the coefficients.*
- 2. Multiply the variables. Add the exponents. If they are different, put the variables in alphabetically order.*

# Multiplying Monomials

**Assignment:**

**Fluency Practice: Multiplying Monomials Worksheet**