

# Math Sheet

Name \_\_\_\_\_ Score \_\_\_\_\_ / 14 Teacher \_\_\_\_\_ Date \_\_\_\_\_

## Multiply Powers

Combine like bases and write positive exponents.

1.  $4^2 \cdot 4^{-4}$

\_\_\_\_\_

2.  $\left(\frac{4}{7}\right)^{-6} \cdot \left(\frac{4}{7}\right)^3 \cdot \left(\frac{4}{7}\right)^{-2}$

\_\_\_\_\_

3.  $y^2 \cdot y^{-2}$

Domain: real variables  $y \in \mathbb{R}$   $y \neq 0$

\_\_\_\_\_

4.  $9^{-1} \cdot 9^5 \cdot 9^{-4}$

\_\_\_\_\_

5.  $\left(\frac{1}{3}\right)^2 \cdot \left(\frac{1}{3}\right)^{-1}$

\_\_\_\_\_

6.  $x^{-3} \cdot x \cdot x^{-1}$

Domain: real variables  $x \in \mathbb{R}$   $x \neq 0$

\_\_\_\_\_

7.  $5^2 \cdot 5^{-4}$

\_\_\_\_\_

8.  $\left(\frac{1}{6}\right)^{-3} \cdot \frac{1}{6} \cdot \left(\frac{1}{6}\right)^{-4}$

\_\_\_\_\_

9.  $y \cdot y^{-5}$

Domain: real variables  $y \in \mathbb{R}$   $y \neq 0$

\_\_\_\_\_

10.  $2^{-4} \cdot 2^3 \cdot 2^{-1}$

\_\_\_\_\_

11.  $\left(\frac{1}{2}\right)^2 \cdot \left(\frac{1}{2}\right)^{-6}$

\_\_\_\_\_

12.  $x^{-4} \cdot x \cdot x^{-4}$

Domain: real variables  $x \in \mathbb{R}$   $x \neq 0$

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# Math Sheet

Name \_\_\_\_\_ Score \_\_\_\_\_ / 14 Teacher \_\_\_\_\_ Date \_\_\_\_\_

## Multiply Powers

Combine like bases and write positive exponents.

13.  $7 \cdot 7^{-6}$

\_\_\_\_\_

14.  $\left(\frac{5}{6}\right)^{-4} \cdot \left(\frac{5}{6}\right)^2 \cdot \left(\frac{5}{6}\right)^{-6}$

\_\_\_\_\_

# Math Sheet

Name \_\_\_\_\_ Score \_\_\_\_\_ / 14 Teacher \_\_\_\_\_ Date \_\_\_\_\_

## Multiply Powers

### Answer Key

Combine like bases and write positive exponents.

1.  $4^2 \cdot 4^{-4}$

Work:  
 $\frac{1}{4^2}$

2.  $\left(\frac{4}{7}\right)^{-6} \cdot \left(\frac{4}{7}\right)^3 \cdot \left(\frac{4}{7}\right)^{-2}$

Work:  
 $\frac{1}{\left(\frac{4}{7}\right)^5}$

3.  $y^2 \cdot y^{-2}$

Domain: real variables  $y \in \mathbb{R}$   $y \neq 0$

Work:  
 $1$

4.  $9^{-1} \cdot 9^5 \cdot 9^{-4}$

Work:  
 $1$

5.  $\left(\frac{1}{3}\right)^2 \cdot \left(\frac{1}{3}\right)^{-1}$

Work:  
 $\frac{1}{3}$

6.  $x^{-3} \cdot x \cdot x^{-1}$

Domain: real variables  $x \in \mathbb{R}$   $x \neq 0$

Work:  
 $\frac{1}{x^3}$

7.  $5^2 \cdot 5^{-4}$

Work:  
 $\frac{1}{5^2}$

8.  $\left(\frac{1}{6}\right)^{-3} \cdot \frac{1}{6} \cdot \left(\frac{1}{6}\right)^{-4}$

Work:  
 $\frac{1}{\left(\frac{1}{6}\right)^6}$

9.  $y \cdot y^{-5}$

Domain: real variables  $y \in \mathbb{R}$   $y \neq 0$

Work:  
 $\frac{1}{y^4}$

10.  $2^{-4} \cdot 2^3 \cdot 2^{-1}$

Work:  
 $\frac{1}{2^2}$

11.  $\left(\frac{1}{2}\right)^2 \cdot \left(\frac{1}{2}\right)^{-6}$

Work:  
 $\frac{1}{\left(\frac{1}{2}\right)^4}$

12.  $x^{-4} \cdot x \cdot x^{-4}$

Domain: real variables  $x \in \mathbb{R}$   $x \neq 0$

Work:  
 $\frac{1}{x^7}$

# Math Sheet

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## Multiply Powers

### Answer Key

Combine like bases and write positive exponents.

13.  $7 \cdot 7^{-6}$

Work:  
$$\frac{1}{7^5}$$

14.  $\left(\frac{5}{6}\right)^{-4} \cdot \left(\frac{5}{6}\right)^2 \cdot \left(\frac{5}{6}\right)^{-6}$

Work:  
$$\frac{1}{\left(\frac{5}{6}\right)^8}$$