

## Dividing Exponents

Date \_\_\_\_\_ Period \_\_\_\_\_

**Divide.**

1)  $\frac{2^{-1}}{2^{-2}}$

2)  $\frac{2^{-2}}{2^{-5}}$

3)  $\frac{z^2}{z^{-2}}$

4)  $\frac{b^{-3}}{b^{-1}}$

5)  $\frac{f^{-4}}{f^{-3}}$

6)  $\frac{d^2}{d^1}$

7)  $\frac{j^5}{j^{-3}}$

8)  $\frac{2^3}{2^0}$

9)  $\frac{4^{-4}}{4^0}$

10)  $\frac{7^2}{7^{-3}}$

11)  $\frac{9^{-3}}{9^{-1}}$

12)  $\frac{7^{-3}}{7^{-2}}$

13)  $\frac{4^{-4}}{4^{-1}}$

14)  $\frac{w^0}{w^1}$

15)  $\frac{q^{-2}}{q^{-5}}$

16)  $\frac{e^{-5}}{e^2}$

## Dividing Exponents

**Divide.**

1)  $\frac{2^{-1}}{2^{-2}}$

Answer:  $2^1$ 

2)  $\frac{2^{-2}}{2^{-5}}$

Answer:  $2^3$ 

3)  $\frac{z^2}{z^{-2}}$

Answer:  $z^4$ 

4)  $\frac{b^{-3}}{b^{-1}}$

Answer:  
 $b^{-2}$ 

5)  $\frac{f^{-4}}{f^{-3}}$

Answer:  
 $f^{-1}$ 

6)  $\frac{d^2}{d^1}$

Answer:  $d^1$ 

7)  $\frac{j^5}{j^{-3}}$

Answer:  $j^8$ 

8)  $\frac{2^3}{2^0}$

Answer:  $2^3$ 

9)  $\frac{4^{-4}}{4^0}$

Answer:  
 $4^{-4}$ 

10)  $\frac{7^2}{7^{-3}}$

Answer:  $7^5$ 

11)  $\frac{9^{-3}}{9^{-1}}$

Answer:  
 $9^{-2}$ 

12)  $\frac{7^{-3}}{7^{-2}}$

Answer:  
 $7^{-1}$

13)  $\frac{4^{-4}}{4^{-1}}$

Answer:  
 $4^{-3}$

14)  $\frac{w^0}{w^1}$

Answer:  
 $w^{-1}$

15)  $\frac{q^{-2}}{q^{-5}}$

Answer:  $q^3$

16)  $\frac{e^{-5}}{e^2}$

Answer:  
 $e^{-7}$

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Name \_\_\_\_\_

Dividing Exponents

Date \_\_\_\_\_ Period \_\_\_\_\_

**Solution Steps**

1)  $\frac{2^{-1}}{2^{-2}}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{2^{-1}}{2^{-2}} = 2^{-1-(-2)}$$

2)  $\frac{2^{-2}}{2^{-5}}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{2^{-2}}{2^{-5}} = 2^{-2-(-5)}$$

3)  $\frac{z^2}{z^{-2}}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{z^2}{z^{-2}} = z^{2-(-2)}$$

4)  $\frac{b^{-3}}{b^{-1}}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{b^{-3}}{b^{-1}} = b^{-3-(-1)}$$

5)  $\frac{f^{-4}}{f^{-3}}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{f^{-4}}{f^{-3}} = f^{-4-(-3)}$$

6)  $\frac{d^2}{d^1}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{d^2}{d^1} = d^{2-1}$$

7)  $\frac{j^5}{j^{-3}}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{j^5}{j^{-3}} = j^{5-(-3)}$$

8)  $\frac{2^3}{2^0}$

When dividing exponents with like bases, you subtract the exponents

$$\frac{2^3}{2^0} = 2^{3-0}$$

$$9) \frac{4^{-4}}{4^0}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{4^{-4}}{4^0} \\ 4^{-4-0}$$

$$13) \frac{4^{-4}}{4^{-1}}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{4^{-4}}{4^{-1}} \\ 4^{-4-(-1)}$$

$$10) \frac{7^2}{7^{-3}}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{7^2}{7^{-3}} \\ 7^{2-(-3)}$$

$$14) \frac{w^0}{w^1}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{w^0}{w^1} \\ w^{0-1}$$

$$11) \frac{9^{-3}}{9^{-1}}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{9^{-3}}{9^{-1}} \\ 9^{-3-(-1)}$$

$$15) \frac{q^{-2}}{q^{-5}}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{q^{-2}}{q^{-5}} \\ q^{-2-(-5)}$$

$$12) \frac{7^{-3}}{7^{-2}}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{7^{-3}}{7^{-2}} \\ 7^{-3-(-2)}$$

$$16) \frac{e^{-5}}{e^2}$$

When dividing exponents with like bases, you subtract the exponents

$$\frac{e^{-5}}{e^2} \\ e^{-5-2}$$