



Solve each problem using the laws of exponents.

1)  $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2)  $(3 \times 2)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3)  $2^2 \times 2^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4)  $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5)  $(2^4)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6)  $3^{-3} \times 3^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7)  $3^3 \times 3^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8)  $3^{-4} \times 3^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9)  $2^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10)  $(\frac{1}{2})^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_



Solve each problem using the laws of exponents.

1)  $3^0 = \underline{1} = \underline{1}$

2)  $(3 \times 2)^2 = \underline{3^2 \times 2^2} = \underline{36}$

3)  $2^2 \times 2^4 = \underline{2^{2+4}} = \underline{64}$

4)  $3^1 = \underline{3} = \underline{3}$

5)  $(2^4)^2 = \underline{2^{4 \times 2}} = \underline{256}$

6)  $3^{-3} \times 3^2 = \underline{3^{-3+2}} = \underline{\frac{1}{3}}$

7)  $3^3 \times 3^{-4} = \underline{3^{3-4}} = \underline{\frac{1}{3}}$

8)  $3^{-4} \times 3^2 = \underline{3^{-4+2}} = \underline{\frac{1}{9}}$

9)  $2^{-3} = \underline{\frac{1}{2^3}} = \underline{\frac{1}{8}}$

10)  $(\frac{1}{2})^2 = \underline{\frac{1}{2^2}} = \underline{\frac{1}{4}}$

**Answers**

1. 1

2. 36

3. 64

4. 3

5. 256

6.  $\frac{1}{3}$

7.  $\frac{1}{3}$

8.  $\frac{1}{9}$

9.  $\frac{1}{8}$

10.  $\frac{1}{4}$