



Solve each problem using the laws of exponents.

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

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

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

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

5)  $(2 \cdot 3)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6)  $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7)  $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

9)  $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10)  $(3^4)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**Answers**

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

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

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

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

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

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

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

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

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

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



Solve each problem using the laws of exponents.

1)  $2^3 \cdot 2^{-2} = 2^{3-2} = 2$

2)  $2^{-4} \cdot 2^3 = 2^{-4+3} = \frac{1}{2}$

3)  $(\frac{1}{3})^3 = \frac{1}{3^3} = \frac{1}{27}$

4)  $2^{-4} = \frac{1}{2^4} = \frac{1}{16}$

5)  $(2 \cdot 3)^2 = 2^2 \cdot 3^2 = 36$

6)  $2^0 = 1 = 1$

7)  $2^1 = 2 = 2$

8)  $3^4 \cdot 3^2 = 3^{4+2} = 729$

9)  $2^0 = 1 = 1$

10)  $(3^4)^2 = 3^{4 \cdot 2} = 6,561$

Answers

1. 2

2.  $\frac{1}{2}$

3.  $\frac{1}{27}$

4.  $\frac{1}{16}$

5. 36

6. 1

7. 2

8. 729

9. 1

10. 6,561