



Solve each problem using the laws of exponents.

Answers

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

1.

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

2.

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

3.

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

4.

5) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5.

6) $3^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6.

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

7.

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

8.

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

9.

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

10.



Solve each problem using the laws of exponents.

1) $(2^2)^4 = 2^{2 \times 4} = 256$

2) $3^1 = 3 = 3$

3) $(2^3)^2 = 2^{3 \times 2} = 64$

4) $(3 \times 2)^4 = 3^4 \times 2^4 = 1,296$

5) $3^0 = 1 = 1$

6) $3^{-4} = 1/3^4 = \frac{1}{81}$

7) $3^{-4} \times 3^2 = 3^{-4+2} = \frac{1}{9}$

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

9) $(1/2)^2 = 1/2^2 = \frac{1}{4}$

10) $2^2 \times 2^4 = 2^{2+4} = 64$

Answers

1. **256**

2. **3**

3. **64**

4. **1,296**

5. **1**

6. $\frac{1}{81}$

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

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

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

10. **64**