



Solve each problem using the laws of exponents.

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

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

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

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

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

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

7)  $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

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

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

**Answers**

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

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

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

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

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

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

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

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

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

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



Solve each problem using the laws of exponents.

1)  $3^3 \times 3^4 = 3^{3+4} = 2,187$

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

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

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

5)  $2^0 = 1 = 1$

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

7)  $3^1 = 3 = 3$

8)  $(2^2)^4 = 2^{2 \times 4} = 256$

9)  $(2 \times 3)^2 = 2^2 \times 3^2 = 36$

10)  $2^3 \times 2^2 = 2^{3+2} = 32$

Answers

1. 2,187

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

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

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

5. 1

6. 3

7. 3

8. 256

9. 36

10. 32