



Solve each problem using the laws of exponents.

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

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

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

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

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

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

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

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

9)  $3^{-2} \times 3^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

**Answers**

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

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

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

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

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

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

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

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

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

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



Solve each problem using the laws of exponents.

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

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

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

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

5)  $2^2 \times 2^3 = \underline{2^{2+3}} = \underline{32}$

6)  $(3 \times 2)^3 = \underline{3^3 \times 2^3} = \underline{216}$

7)  $(\frac{1}{3})^2 = \underline{\frac{1}{3^2}} = \underline{\frac{1}{9}}$

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

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

10)  $(2^2)^4 = \underline{2^{2 \times 4}} = \underline{256}$

**Answers**

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

2.  $\underline{\frac{1}{16}}$

3.  $\underline{1}$

4.  $\underline{3}$

5.  $\underline{32}$

6.  $\underline{216}$

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

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

9.  $\underline{9}$

10.  $\underline{256}$