



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

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

3) $2^0 = 1 = 1$

4) $3^1 = 3 = 3$

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

6) $(3 \times 2)^3 = 3^3 \times 2^3 = 216$

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

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

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

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

Answers

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

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

3. **1**

4. **3**

5. **32**

6. **216**

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

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

9. **9**

10. **256**