



Solve each problem using the laws of exponents.

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

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

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

4)  $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

6)  $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

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

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

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

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

3)  $3^0 = 1 = 1$

4)  $3^0 = 1 = 1$

5)  $2^{-2} = \frac{1}{2^2} = \frac{1}{4}$

6)  $2^1 = 2 = 2$

7)  $(2 \times 3)^2 = 2^2 \times 3^2 = 36$

8)  $3^2 \times 3^3 = 3^{2+3} = 243$

9)  $(3^2)^4 = 3^{2 \times 4} = 6,561$

10)  $2^3 \times 2^{-2} = 2^{3-2} = 2$

**Answers**

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

2.  $3$

3.  $1$

4.  $1$

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

6.  $2$

7.  $36$

8.  $243$

9.  $6,561$

10.  $2$