



Solve each problem using the laws of exponents.

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

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

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

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

5)  $(3 \times 2)^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6)  $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

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

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

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

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

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

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

5)  $(3 \times 2)^4 = \underline{3^4 \times 2^4} = \underline{1,296}$

6)  $3^0 = \underline{1} = \underline{1}$

7)  $(3^2)^3 = \underline{3^{2 \times 3}} = \underline{729}$

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

9)  $2^{-4} = \underline{\frac{1}{2^4}} = \underline{\frac{1}{16}}$

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

Answers

1.  $\underline{3}$

2.  $\underline{\frac{1}{4}}$

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

4.  $\underline{2,187}$

5.  $\underline{1,296}$

6.  $\underline{1}$

7.  $\underline{729}$

8.  $\underline{\frac{1}{4}}$

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

10.  $\underline{256}$