



Solve each problem using the laws of exponents.

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

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

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

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

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

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

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

8)  $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

10)  $2^3 \times 2^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**Answers**

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

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

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

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

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

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

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

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

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

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



Solve each problem using the laws of exponents.

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

2)  $(3^3)^4 = \underline{3^{3 \times 4}} = \underline{531,441}$

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

4)  $2^0 = \underline{1} = \underline{1}$

5)  $(\frac{1}{2})^3 = \underline{\frac{1}{2^3}} = \underline{\frac{1}{8}}$

6)  $2^2 \times 2^3 = \underline{2^{2+3}} = \underline{32}$

7)  $(2 \times 3)^3 = \underline{2^3 \times 3^3} = \underline{216}$

8)  $3^1 = \underline{3} = \underline{3}$

9)  $3^{-3} = \underline{\frac{1}{3^3}} = \underline{\frac{1}{27}}$

10)  $2^3 \times 2^{-4} = \underline{2^{3-4}} = \underline{\frac{1}{2}}$

**Answers**

1. 1,296

2. 531,441

3. 3

4. 1

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

6. 32

7. 216

8. 3

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

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