



Solve each problem using the laws of exponents.

1) $2^{-3} =$ _____ $=$ _____

2) $3^3 \times 3^4 =$ _____ $=$ _____

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

4) $(3^3)^4 =$ _____ $=$ _____

5) $3^{-3} =$ _____ $=$ _____

6) $3^1 =$ _____ $=$ _____

7) $(\frac{1}{3})^4 =$ _____ $=$ _____

8) $(2 \times 3)^4 =$ _____ $=$ _____

9) $2^0 =$ _____ $=$ _____

10) $2^{-2} \times 2^4 =$ _____ $=$ _____

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

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

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

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

5) $3^{-3} = \frac{1}{3^3} = \frac{1}{27}$

6) $3^1 = 3 = 3$

7) $(\frac{1}{3})^4 = \frac{1}{3^4} = \frac{1}{81}$

8) $(2 \times 3)^4 = 2^4 \times 3^4 = 1,296$

9) $2^0 = 1 = 1$

10) $2^{-2} \times 2^4 = 2^{-2+4} = 4$

Answers

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

2. **2,187**

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

4. **531,441**

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

6. **3**

7. $\frac{1}{81}$

8. **1,296**

9. **1**

10. **4**