



Solve each problem using the laws of exponents.

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

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

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

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

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

6) $2^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

8) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

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

2) $2^1 = 2 = 2$

3) $(2^3)^4 = 2^{3 \times 4} = 4,096$

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

5) $3^3 \times 3^{-2} = 3^{3-2} = 3$

6) $2^{-4} = \frac{1}{2^4} = \frac{1}{16}$

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

8) $2^0 = 1 = 1$

9) $2^3 \times 2^4 = 2^{3+4} = 128$

10) $2^3 \times 2^4 = 2^{3+4} = 128$

Answers

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

2. 2

3. $4,096$

4. $1,296$

5. 3

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

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

8. 1

9. 128

10. 128