



Solve each problem using the laws of exponents.

1) $3^3 \times 3^4 = 3^{3+4} = 2,187$

2) $3^{-4} \times 3^2 = 3^{-4+2} = \frac{1}{9}$

3) $(\frac{1}{3})^3 = \frac{1}{3^3} = \frac{1}{27}$

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

5) $2^0 = 1 = 1$

6) $3^3 \times 3^{-2} = 3^{3-2} = 3$

7) $3^1 = 3 = 3$

8) $(2^2)^4 = 2^{2 \times 4} = 256$

9) $(2 \times 3)^2 = 2^2 \times 3^2 = 36$

10) $2^3 \times 2^2 = 2^{3+2} = 32$

Answers

1. 2,187

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

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

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

5. 1

6. 3

7. 3

8. 256

9. 36

10. 32