



Solve each problem using the laws of exponents.

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

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

3)  $(2^3)^4 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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

5)  $2^1 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

6)  $2^{-4} =$  \_\_\_\_\_  $=$  \_\_\_\_\_

7)  $3^0 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

8)  $3^3 \times 3^{-4} =$  \_\_\_\_\_  $=$  \_\_\_\_\_

9)  $(\frac{1}{2})^2 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

10)  $(2 \times 3)^4 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

**Answers**

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

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

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

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

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

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

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

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

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

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



Solve each problem using the laws of exponents.

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

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

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

4)  $3^4 \times 3^2 = \underline{3^{4+2}} = \underline{729}$

5)  $2^1 = \underline{2} = \underline{2}$

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

7)  $3^0 = \underline{1} = \underline{1}$

8)  $3^3 \times 3^{-4} = \underline{3^{3-4}} = \underline{\frac{1}{3}}$

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

10)  $(2 \times 3)^4 = \underline{2^4 \times 3^4} = \underline{1,296}$

**Answers**1. 32. 2,1873. 4,0964. 7295. 26.  $\frac{1}{16}$ 7. 18.  $\frac{1}{3}$ 9.  $\frac{1}{4}$ 10. 1,296