



Solve each problem using the laws of exponents.

**Answers**

1)  $3^1 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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

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

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

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

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

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

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

5)  $3^{-4} =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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

6)  $(2 \times 3)^3 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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

7)  $3^1 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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

8)  $(3 \times 2)^2 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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

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

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

10)  $(\frac{1}{3})^4 =$  \_\_\_\_\_  $=$  \_\_\_\_\_

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



Solve each problem using the laws of exponents.

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

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

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

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

5)  $3^{-4} = \underline{1/3^4} = \underline{\frac{1}{81}}$

6)  $(2 \times 3)^3 = \underline{2^3 \times 3^3} = \underline{216}$

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

8)  $(3 \times 2)^2 = \underline{3^2 \times 2^2} = \underline{36}$

9)  $(\frac{1}{2})^4 = \underline{1/2^4} = \underline{\frac{1}{16}}$

10)  $(\frac{1}{3})^4 = \underline{1/3^4} = \underline{\frac{1}{81}}$

**Answers**

1.  $\underline{3}$

2.  $\underline{3}$

3.  $\underline{729}$

4.  $\underline{3}$

5.  $\underline{\frac{1}{81}}$

6.  $\underline{216}$

7.  $\underline{3}$

8.  $\underline{36}$

9.  $\underline{\frac{1}{16}}$

10.  $\underline{\frac{1}{81}}$