Solving Using the Laws of Exponents

Name:

Solve each problem using the laws of exponents.

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

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

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

4) $3^0 =$ _____ = _____

5) $3^0 =$ _____ = _____

6) $(\frac{1}{2})^2 =$ _____ = _____

7) $(2^4)^3 =$ _____ = _____

8) $2^{-3} =$ _____ = _____

9) $3^{-4} \times 3^2 =$ _____ = _____

10) $2^1 =$ _____ = _____

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

Solving Using the Laws of Exponents

Name: **Answer Key**

Solve each problem using the laws of exponents.

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

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

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

4) $3^0 =$ 1 $=$ 1

5) $3^0 =$ 1 $=$ 1

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

7) $(2^4)^3 =$ $2^{4 \times 3}$ $=$ 4,096

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

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

10) $2^1 =$ 2 $=$ 2

Answers

1. **2**
2. **128**
3. **1,296**
4. **1**
5. **1**
6. $\frac{1}{4}$
7. **4,096**
8. $\frac{1}{8}$
9. $\frac{1}{9}$
10. **2**

1-10	90	80	70	60	50	40	30	20	10	0