Solving Using the Laws of Exponents Name:

Solve each problem using the laws of exponents.

1) $(3^2)^3 =$ _____ = _____

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

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

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

5) $2^4 \times 2^3 =$ _____ = _____

6) $2^0 =$ _____ = _____

7) $3^{-2} =$ _____ = _____

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

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

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

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

3) $2^{-2} =$ $1/2^2$ $=$ $1/4$

4) $(1/2)^4 =$ $1/2^4$ $=$ $1/16$

5) $2^4 \times 2^3 =$ 2^{4+3} $=$ 128

6) $2^0 =$ 1 $=$ 1

7) $3^{-2} =$ $1/3^2$ $=$ $1/9$

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

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

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

Answers

1. 729
2. 36
3. $1/4$
4. $1/16$
5. 128
6. 1
7. $1/9$
8. 3
9. 2
10. 2

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