Solve each problem using the laws of exponents.

1) $3^1 = $ _____ = _____

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

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

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

5) $(\tfrac{1}{3})^2 = $ _____ = _____

6) $3^{-2} = $ _____ = _____

7) $2^0 = $ _____ = _____

8) $2^{-4} \times 2^2 = $ _____ = _____

9) $(\tfrac{1}{3})^3 = $ _____ = _____

10) $3^2 \times 3^3 = $ _____ = _____

Name:

Solve each problem using the laws of exponents.

Answers

1) $3^1 =$ _____3_____ = _____3_____

2) $(2^3)^2 =$ _____$2^{3 \times 2}$_____ = _____64_____

3) $(2 \times 3)^2 =$ _____$2^2 \times 3^2$_____ = _____36_____

4) $2^2 \times 2^{-4} =$ _____2^{2-4}_____ = _____$\frac{1}{4}$_____

5) $(\frac{1}{3})^2 =$ _____$\frac{1}{3^2}$_____ = _____$\frac{1}{9}$_____

6) $3^{-2} =$ _____$\frac{1}{3^2}$_____ = _____$\frac{1}{9}$_____

7) $2^0 =$ _____1_____ = _____1_____

8) $2^{-4} \times 2^2 =$ _____2^{-4+2}_____ = _____$\frac{1}{4}$_____

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

10) $3^2 \times 3^3 =$ _____3^{2+3}_____ = _____243_____

1. _____**3**_____

2. _____**64**_____

3. _____**36**_____

4. _____**$\frac{1}{4}$**_____

5. _____**$\frac{1}{9}$**_____

6. _____**$\frac{1}{9}$**_____

7. _____**1**_____

8. _____**$\frac{1}{4}$**_____

9. _____**$\frac{1}{27}$**_____

10. _____**243**_____

Math

8

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