



Solve each problem using the laws of exponents.

1) $3^{-4} \cdot 3^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $(\frac{1}{2})^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $(2 \cdot 3)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $3^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $(2^2)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $2^4 \cdot 2^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $3^3 \cdot 3^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

1) $3^{-4} \cdot 3^3 = \underline{3^{-4+3}} = \underline{\frac{1}{3}}$

2) $2^0 = \underline{1} = \underline{1}$

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

4) $(2 \cdot 3)^2 = \underline{2^2 \cdot 3^2} = \underline{36}$

5) $3^{-3} = \underline{\frac{1}{3^3}} = \underline{\frac{1}{27}}$

6) $2^1 = \underline{2} = \underline{2}$

7) $(2^2)^3 = \underline{2^{2 \cdot 3}} = \underline{64}$

8) $2^4 \cdot 2^{-2} = \underline{2^{4-2}} = \underline{4}$

9) $2^0 = \underline{1} = \underline{1}$

10) $3^3 \cdot 3^4 = \underline{3^{3+4}} = \underline{2,187}$

Answers

1. $\underline{\frac{1}{3}}$

2. $\underline{1}$

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

4. $\underline{36}$

5. $\underline{\frac{1}{27}}$

6. $\underline{2}$

7. $\underline{64}$

8. $\underline{4}$

9. $\underline{1}$

10. $\underline{2,187}$



Solve each problem using the laws of exponents.

1) $3^4 \cdot 3^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $3^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $(2 \cdot 3)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $2^3 \cdot 2^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $3^{-3} \cdot 3^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $(\frac{1}{3})^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $(3^2)^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $3^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

1) $3^4 \cdot 3^{-2} = 3^{4-2} = 9$

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

3) $(2 \cdot 3)^3 = 2^3 \cdot 3^3 = 216$

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

5) $3^{-3} \cdot 3^4 = 3^{-3+4} = 3$

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

7) $2^1 = 2 = 2$

8) $2^0 = 1 = 1$

9) $(3^2)^4 = 3^{2 \cdot 4} = 6,561$

10) $3^{-2} = \frac{1}{3^2} = \frac{1}{9}$

Answers

1. 9

2. $\frac{1}{9}$

3. 216

4. 128

5. 3

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

7. 2

8. 1

9. 6,561

10. $\frac{1}{9}$



Solve each problem using the laws of exponents.

1) $2^{-4} \cdot 2^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $(3 \cdot 2)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $2^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $(2^2)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $2^4 \cdot 2^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $3^{-4} \cdot 3^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $2^4 \cdot 2^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $(\frac{1}{3})^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

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

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

4) $3^0 = 1 = 1$

5) $(2^2)^3 = 2^{2 \cdot 3} = 64$

6) $2^4 \cdot 2^{-3} = 2^{4-3} = 2$

7) $3^{-4} \cdot 3^2 = 3^{-4+2} = \frac{1}{9}$

8) $3^1 = 3 = 3$

9) $2^4 \cdot 2^2 = 2^{4+2} = 64$

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

Answers

1. $\frac{1}{2}$

2. 36

3. $\frac{1}{8}$

4. 1

5. 64

6. 2

7. $\frac{1}{9}$

8. 3

9. 64

10. $\frac{1}{9}$



Solve each problem using the laws of exponents.

1) $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $(2 \cdot 3)^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $2^{-3} \cdot 2^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $(3^4)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $(\frac{1}{2})^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $2^4 \cdot 2^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $2^2 \cdot 2^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $2^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

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

3) $2^0 = \underline{1} = \underline{1}$

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

5) $3^0 = \underline{1} = \underline{1}$

6) $(3^4)^3 = \underline{3^{4 \cdot 3}} = \underline{531,441}$

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

8) $2^4 \cdot 2^2 = \underline{2^{4+2}} = \underline{64}$

9) $2^2 \cdot 2^{-3} = \underline{2^{2-3}} = \underline{\frac{1}{2}}$

10) $2^{-3} = \underline{\frac{1}{2^3}} = \underline{\frac{1}{8}}$

Answers

1. $\underline{2}$

2. $\underline{1,296}$

3. $\underline{1}$

4. $\underline{2}$

5. $\underline{1}$

6. $\underline{531,441}$

7. $\underline{\frac{1}{4}}$

8. $\underline{64}$

9. $\underline{\frac{1}{2}}$

10. $\underline{\frac{1}{8}}$



Solve each problem using the laws of exponents.

1) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $3^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $(\frac{1}{3})^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $(3^4)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $(2 \cdot 3)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $3^3 \cdot 3^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $2^2 \cdot 2^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $(3 \cdot 2)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $3^{-4} \cdot 3^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

2) $3^{-3} = \underline{\frac{1}{3^3}} = \underline{\frac{1}{27}}$

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

4) $(3^4)^2 = \underline{3^{4 \cdot 2}} = \underline{6,561}$

5) $(2 \cdot 3)^3 = \underline{2^3 \cdot 3^3} = \underline{216}$

6) $3^1 = \underline{3} = \underline{3}$

7) $3^3 \cdot 3^4 = \underline{3^{3+4}} = \underline{2,187}$

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

9) $(3 \cdot 2)^3 = \underline{3^3 \cdot 2^3} = \underline{216}$

10) $3^{-4} \cdot 3^3 = \underline{3^{-4+3}} = \underline{\frac{1}{3}}$

Answers

1. $\underline{1}$

2. $\underline{\frac{1}{27}}$

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

4. $\underline{6,561}$

5. $\underline{216}$

6. $\underline{3}$

7. $\underline{2,187}$

8. $\underline{\frac{1}{2}}$

9. $\underline{216}$

10. $\underline{\frac{1}{3}}$



Solve each problem using the laws of exponents.

1) $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $(2 \cdot 3)^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $2^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $(3^3)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $3^{-4} \cdot 3^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $2^2 \cdot 2^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $3^4 \cdot 3^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $3^4 \cdot 3^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $(\frac{1}{3})^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

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

3) $2^{-4} = \underline{\frac{1}{2^4}} = \underline{\frac{1}{16}}$

4) $(3^3)^2 = \underline{3^{3 \cdot 2}} = \underline{729}$

5) $3^{-4} \cdot 3^2 = \underline{3^{-4+2}} = \underline{\frac{1}{9}}$

6) $2^2 \cdot 2^4 = \underline{2^{2+4}} = \underline{64}$

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

8) $3^4 \cdot 3^{-2} = \underline{3^{4-2}} = \underline{9}$

9) $3^4 \cdot 3^{-3} = \underline{3^{4-3}} = \underline{3}$

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

Answers

1. $\underline{3}$

2. $\underline{1,296}$

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

4. $\underline{729}$

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

6. $\underline{64}$

7. $\underline{1}$

8. $\underline{9}$

9. $\underline{3}$

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



Solve each problem using the laws of exponents.

1) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $3^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $2^3 \cdot 2^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $2^3 \cdot 2^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $(\frac{1}{3})^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $(2 \cdot 3)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $(2^4)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $3^{-2} \cdot 3^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

2) $3^{-4} = \underline{\frac{1}{3^4}} = \underline{\frac{1}{81}}$

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

4) $2^3 \cdot 2^{-4} = \underline{2^{3-4}} = \underline{\frac{1}{2}}$

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

6) $3^1 = \underline{3} = \underline{3}$

7) $(2 \cdot 3)^3 = \underline{2^3 \cdot 3^3} = \underline{216}$

8) $(2^4)^2 = \underline{2^{4 \cdot 2}} = \underline{256}$

9) $3^{-2} \cdot 3^4 = \underline{3^{-2+4}} = \underline{9}$

10) $3^1 = \underline{3} = \underline{3}$

Answers

1. $\underline{1}$

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

3. $\underline{128}$

4. $\underline{\frac{1}{2}}$

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

6. $\underline{3}$

7. $\underline{216}$

8. $\underline{256}$

9. $\underline{9}$

10. $\underline{3}$



Solve each problem using the laws of exponents.

1) $(3^4)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $(3 \cdot 2)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $3^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $3^{-3} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $3^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $2^{-3} \cdot 2^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $(\frac{1}{3})^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $3^3 \cdot 3^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $2^3 \cdot 2^4 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

1) $(3^4)^2 = 3^{4 \cdot 2} = 6,561$

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

3) $3^1 = 3 = 3$

4) $3^0 = 1 = 1$

5) $3^{-3} = \frac{1}{3^3} = \frac{1}{27}$

6) $3^0 = 1 = 1$

7) $2^{-3} \cdot 2^2 = 2^{-3+2} = \frac{1}{2}$

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

9) $3^3 \cdot 3^{-2} = 3^{3-2} = 3$

10) $2^3 \cdot 2^4 = 2^{3+4} = 128$

Answers

1. **6,561**

2. **36**

3. **3**

4. **1**

5. **$\frac{1}{27}$**

6. **1**

7. **$\frac{1}{2}$**

8. **$\frac{1}{27}$**

9. **3**

10. **128**



Solve each problem using the laws of exponents.

1) $2^4 \cdot 2^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $3^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $(3^4)^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $(3 \cdot 2)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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

7) $2^{-4} \cdot 2^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $2^4 \cdot 2^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

1) $2^4 \cdot 2^{-2} = 2^{4-2} = 4$

2) $3^{-4} = \frac{1}{3^4} = \frac{1}{81}$

3) $2^1 = 2 = 2$

4) $(3^4)^3 = 3^{4 \cdot 3} = 531,441$

5) $(3 \cdot 2)^2 = 3^2 \cdot 2^2 = 36$

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

7) $2^{-4} \cdot 2^2 = 2^{-4+2} = \frac{1}{4}$

8) $2^0 = 1 = 1$

9) $2^0 = 1 = 1$

10) $2^4 \cdot 2^3 = 2^{4+3} = 128$

Answers

1. 4

2. $\frac{1}{81}$

3. 2

4. 531,441

5. 36

6. $\frac{1}{16}$

7. $\frac{1}{4}$

8. 1

9. 1

10. 128



Solve each problem using the laws of exponents.

1) $2^3 \cdot 2^{-2} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

2) $2^{-4} \cdot 2^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

3) $(\frac{1}{3})^3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

4) $2^{-4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

5) $(2 \cdot 3)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

6) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

7) $2^1 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

8) $3^4 \cdot 3^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

9) $2^0 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

10) $(3^4)^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Solve each problem using the laws of exponents.

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

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

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

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

5) $(2 \cdot 3)^2 = 2^2 \cdot 3^2 = 36$

6) $2^0 = 1 = 1$

7) $2^1 = 2 = 2$

8) $3^4 \cdot 3^2 = 3^{4+2} = 729$

9) $2^0 = 1 = 1$

10) $(3^4)^2 = 3^{4 \cdot 2} = 6,561$

Answers

1. 2

2. $\frac{1}{2}$

3. $\frac{1}{27}$

4. $\frac{1}{16}$

5. 36

6. 1

7. 2

8. 729

9. 1

10. 6,561