Exponent Rules (I)

Simplify each expression.

1. $\dfrac{6^7}{6^7}$

2. $\dfrac{2^9}{2^3}$

3. $\dfrac{(-9)^{-2}}{(-9)^0}$

4. $(-2)^8 \cdot (-2)^8$

5. $(9^{-2})^1$

6. $(-2)^4 \cdot 9^4$

7. $(9^{-1})^6$

8. $(-9)^{-9} \cdot (-9)^7$

9. $\dfrac{3^{-9}}{3^2}$

10. $(-6)^3 \cdot (-6)^5$

Exponent Rules (I) Answers

Simplify each expression.

1. $\dfrac{6^7}{6^7}$

$= 6^0 = 1$

2. $\dfrac{2^9}{2^3}$

$= 2^6$

3. $\dfrac{(-9)^{-2}}{(-9)^0}$

$= (-9)^{-2} = \dfrac{1}{(-9)^2}$

4. $(-2)^8 \cdot (-2)^8$

$= (-2)^{16}$

5. $(9^{-2})^1$

$= 9^{-2} = \dfrac{1}{9^2}$

6. $(-2)^4 \cdot 9^4$

$= (-18)^4$

7. $(9^{-1})^6$

$= 9^{-6} = \dfrac{1}{9^6}$

8. $(-9)^{-9} \cdot (-9)^7$

$= (-9)^{-2} = \dfrac{1}{(-9)^2}$

9. $\dfrac{3^{-9}}{3^2}$

$= 3^{-11} = \dfrac{1}{3^{11}}$

10. $(-6)^3 \cdot (-6)^5$

$= (-6)^8$