MATH WITH MR DJ

HOMEWORK

Integer exponents

GRADE 8 MATH

Name ______________________ **Date** ____________

Simplify or evaluate. Name the law each time. No calculator.

WORKED EXAMPLE

Multiply → add. Power of a power → multiply. Divide → subtract. $x^0 = 1$. $x^{-n} = 1/x^n$.

1. Simplify $6^2 \times 6^5$.

FLUENCY

Show your thinking

Answer

2. Simplify $(5^2)^4$.

FLUENCY

Show your thinking

Answer

3. Evaluate 8^0 and 2^{-4}. **FLUENCY**

Show your thinking

Answer

4. Simplify $3^6 \div 3^2$. **FLUENCY**

Show your thinking

Answer

5. Explain the difference between $4^2 \times 4^3$ and $(4^2)^3$. **REASONING**

Show your thinking

Answer

6. Simplify $5^3 \div 5^6$, giving a positive-exponent fraction.

APPLICATION

Show your thinking

Answer

7. Mia writes $7^0 = 0$. Explain why that cannot be right.

REASONING

Show your thinking

Answer

8. Simplify $(3^3 \div 3)^2$.

APPLICATION

Show your thinking

Answer