

Rewriting Expressions



REWRITING EXPONENTIAL EXPRESSIONS

EXAMPLES:

$$X^4 + Y^6 = (X^2)^2 + (Y^2)^3 = (X^2)^2 + (Y^3)^2$$

AND

$$X^8 - Y^{10} = (X^2)^4 - (Y^2)^5 = (X^4)^2 - (Y^5)^2$$

SIMPLIFYING THE EXPRESSIONS

EXAMPLES:

$$\begin{aligned} 4(X-5)+6 &= 4X-20+6 \\ &= 4X-14 \end{aligned}$$

AND

$$\begin{aligned} -4(Y+2)+5Y+2 &= -4Y-8+5Y+2 \\ &= Y-6 \end{aligned}$$

EVALUATING THE EXPRESSIONS

EXAMPLES:

$$\begin{aligned} 4^3 \times 2^4 &= (4 \times 4 \times 4) \times (2 \times 2 \times 2 \times 2) \\ &= 64 \times 16 \\ &= 1024 \end{aligned}$$

AND

$$\begin{aligned} 5^2 \times 3^3 &= (5 \times 5) \times (3 \times 3 \times 3) \\ &= 25 \times 27 \\ &= 675 \end{aligned}$$

Meets: Common Core Standard High School – HSA-SSE.A.2