

## Raising a Power to a Power

✓ \* Keep the same base and multiply the exponents

$$(X^2)^3 = X^{2 \cdot 3} = X^6$$

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

$$\textcircled{1} \quad (4^2)^3 = 4^{2 \cdot 3} = 4^6$$

$$\textcircled{2} \quad (y^4)^5 = y^{4 \cdot 5} = y^{20}$$

$$\textcircled{3} \quad (b^5)^5 = b^{5 \cdot 5} = b^{25}$$

$$\textcircled{4} \quad (y^{10})^8 = y^{10 \cdot 8} = y^{80}$$

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