

LESSON
2-1**Integer Exponents****Practice and Problem Solving: D**

Write each expression without exponents. Then find the value. The first one is done for you.

$$1. 4^{-4} = \frac{1}{4 \times 4 \times 4 \times 4} = \frac{1}{256}$$

$$2. 6^2 = \underline{\hspace{2cm}}$$

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

$$4. 24^0 = \underline{\hspace{2cm}}$$

$$5. 7^{-2} = \underline{\hspace{2cm}}$$

$$6. 10^5 = \underline{\hspace{2cm}}$$

Simplify each expression. Show your work. The first is done for you.

$$7. \frac{(3 \cdot 2)^6}{(7-1)^4} = \frac{6^6}{6^4} = \frac{6^6}{6^4}$$

$$= 6^{6-4} = 6^2$$

$$= 36$$

$$8. (3)^2 \cdot (3^1)$$

$$9. 4^2 \cdot 4^3$$

$$10. (4^2)^3$$

$$11. (4-3)^2 \cdot (5 \cdot 4)^0$$

$$12. (2+3)^5 \div (5^2)^2$$

Answer the question.

13. Find the value of $(2^2)^3$. Then find the value of $(2^3)^2$. What is true about the results? Explain why.
