

Name _____

8-5A Lesson Master

Questions on SPUR Objectives
See pages 521–523 for objectives.

SKILLS Objectives A, B and C

In 1-3, simplify and give the answer as a simple fraction.

1. $6\left(\frac{3}{4}\right)^{-1}$ _____ 2. $124\left(\frac{2}{3}\right)^{-3}$ _____ 3. $8\left(\frac{5}{7}\right)^{-2}$ _____
4. *True or False.* If $f(x) = -3x^2$, $f(2) > f(4)$. _____

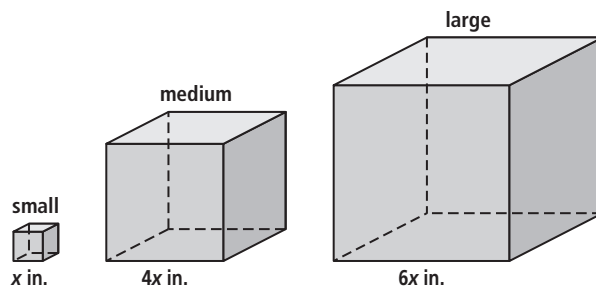
In 5 and 6, an expression is given.

- a. Write the expression in expanded form.
b. Simplify the expression.

5. $(3a)^4$ 6. $\left(\frac{2}{5x^2}\right)^3$
- a. _____ a. _____
b. _____ b. _____

7. The length of one side of each cube is given.
Find the volume of each cube.

Small _____
Medium _____
Large _____



In 8-10, rewrite without parentheses.

8. $(4m^2n^5)^3$ _____ 9. $\left(\frac{-2a^7b}{5a^2b^4}\right)^2$ _____ 10. $(7x^3)^2 \left(\frac{x^4}{2}\right)^3$ _____

PROPERTIES Objective G

In 11-13, a. Fill in the blank to make the statement true for all values of the variables.

b. Identify the property that justifies the statement.

11. $(5x^4y^7)^2 = 125x^{12}y^{21}$ 12. $\left(\frac{3a^4}{8b^7}\right)^2 = \frac{9a^8}{64b^{14}}$ 13. $(?)^4 = 16m^{32}n^{20}$
- a. _____ a. _____ a. _____
b. _____ b. _____ b. _____