NAME _____ DATE _____ PERIOD _____

8-1 Practice

Multiplying Monomials

Determine whether each expression is a monomial. Write *yes* or *no*. Explain.

1. $\frac{21a^2}{7b}$

2. $\frac{b^3c^2}{2}$

Simplify.

3. $(-5x^2y)(3x^4)$

4. $(2ab^2c^2)(4a^3b^2c^2)$

5. $(3cd^4)(-2c^2)$

6. $(4g^3h)(-2g^5)$

7. $(-15xy^4)\left(-\frac{1}{3}xy^3\right)$

8. $(-xy)^3(xz)$

9. $(-18m^2n)^2\left(-\frac{1}{6}mn^2\right)$

10. $(0.2a^2b^3)^2$

11. $\left(\frac{2}{3}p\right)^2$

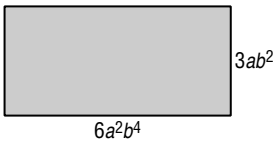
12. $\left(\frac{1}{4}cd^3\right)^2$

13. $(0.4k^3)^3$

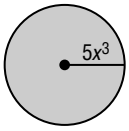
14. $[(4^2)^2]^2$

GEOMETRY Express the area of each figure as a monomial.

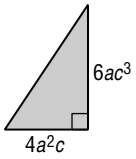
15.



16.

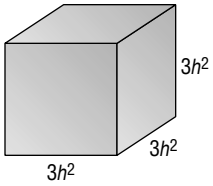


17.



GEOMETRY Express the volume of each solid as a monomial.

18.



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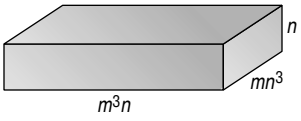
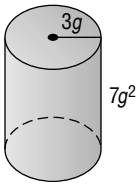


20.



21. COUNTING A panel of four light switches can be set in 2^4 ways. A panel of five light switches can set in twice this many ways. In how many ways can five light switches be set?

22. HOBBIES Tawa wants to increase her rock collection by a power of three this year and then increase it again by a power of two next year. If she has 2 rocks now, how many rocks will she have after the second year?