

LESSON 28: Rules of Exponents

Homework

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Complete the following. Be sure that your answer is in simplest form.

1. $\frac{32xy^4}{8y^5}$

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

3. $15a^2b^4 \cdot 2a^3b^5$

4. $\left(\frac{4x^3y}{5z^2}\right)^2$

5. $\frac{16xyz}{64xyz}$

6. $(-2x^5y^3)(4xy)(6x^4y^3)$

7. $\left(\frac{5d^3e}{f^5}\right)^3$

8. $(2m^2n^3)^5$

9. The area of a rectangle is $54x^4$. What is the length in terms of x if the width is $9x$?

10. What is the area of a rectangle in terms of x if the base is $12x^3$ and the height is $3x^2$?