

Apply The Law Answer Key

1. 3^6
2. 8^5
3. 5^6
4. $2^3 \times 7^3$
5. $18^2 \div 6^2$
6. 1
7. x^8
8. y^5
9. m^{10}
10. 3^4a^4
11. $(12^2b^2) \div 4^2$
12. x^7y^7
13. a^4b^3
14. $2^2p^4q^6$

Teacher's Guide

- Begin with a quick review of the Product of Powers, Quotient of Powers, Power of a Power, Power of a Product, Power of a Quotient, and Zero Exponent laws.
- Encourage students to identify the structure of each expression before simplifying.
- Have students underline matching bases to help determine which exponent law applies.
- For students needing support, allow the use of an exponent law reference chart during the first attempt.
- Increase engagement by having students explain to a partner which law they used for problems 10 through 14.
- Extend learning by asking students to write one new algebraic expression for each exponent law and exchange it with a classmate to solve.