

Chapter 9 — Powers and Exponents

Worksheet A: Guided Practice

Name: _____ Grade: _____ Date: _____

1. Identify the base and exponent in 13^2 .

The base is the repeated factor.

2. Write 8^3 in expanded form.

Write 8 as a factor three times.

3. Evaluate: 11^2

Multiply 11 by itself two times.

4. Evaluate: 9^4

The exponent tells how many factors appear.

5. Evaluate: 11^0

The base is non-zero.

6. Evaluate: -8^2

The negative sign stays outside.

7. Evaluate: $(-7)^2$

The brackets show the negative value is the base.

8. Simplify: $7^2 \times 7^5$

The bases match, so add exponents.

9. Simplify: $8^6 \div 8^2$

The bases match, so subtract exponents.

10. Simplify: $(6^2)^3$

Multiply the exponents.

11. Evaluate: $2^5 + 3$

Evaluate the exponent before adding.

12. Evaluate: 3×7^2

Evaluate the exponent before multiplying.

13. Explain why $3^4 \times 5^2$ cannot be written as one power.

Check whether the bases are the same.

14. Write a power with base 10 and exponent 5. Then state its value.

A base of 10 creates zeros.

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- 15.** Explain why 9^2 does not mean 9×2 .

Expand the power.