

Chapter 1 Test

Round each number to the place shown.

1. 749 *hundred* _____ 2. 9,524 *thousand* _____

Identify the property shown.

3. $16 \cdot 1 = 16$ _____
4. $4 \cdot (3 + 5) = 4 \cdot 3 + 4 \cdot 5$ _____
5. $(14 + 6) + 18 = 14 + (6 + 18)$ _____
6. $35 + 15 = 15 + 35$ _____

Expand each and find its value.

Evaluate the following square roots.

7. 5^3 8. 20^2 9. $\sqrt{16}$ 10. $\sqrt{81}$

Evaluate each according to the order of operations. Show all work.

11. $36 \div 4 \cdot 3$ 12. $2 \cdot 3^2 - 1$ 13. $2 \cdot (4 + 1)^2$

Of the following, determine which are prime, which are composite, and which are neither.

Of the first three prime numbers—2, 3, and 5—which are factors of the following?

14. 41, 77, 38, 19, 2, 1 15. 135 16. 84
- Prime: _____ _____ _____
- Composite: _____ 17. 149 18. 172
- Neither: _____ _____ _____

Find the prime factorization of the following. Write the answer two ways: with and without exponents.

19. 84

20. 80

21. 540

Solve.

22. $24 = x + 9$

23. $7 \cdot y = 343$

24. $25 + 17 + w = 61$

Solve each application.

25. Alfre needs 500 local voters' signatures to put a no-growth measure on the city's November ballot. In June, Alfre collected 126 signatures, and in July, another 248. How many more signatures does Alfre need to collect to reach 500?
26. A school's kindergarten playground has a rectangular sandbox with an area of 450 square yards. If the width of the sandbox is 18 yards, what is its length?