

Chapter 1 Test 1

REVIEW

Do you know HOW?**Write an algebraic expression for each phrase.**

1. a number x plus 11
2. 15 less than the product of 2 and r
3. the quotient of h and 4 plus 10
4. the product of 6 and t divided by 7

Simplify each expression.

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|-------------------------|----------------------|---------------------------------|
| 5. $18 \div (5 + 2^2)$ | 6. $\sqrt{1.69}$ | 7. $5 + 4^2 - 3(7) + 3^2$ |
| 8. $25 \div (42 + 2^3)$ | 9. $-16 + 8y + (-3)$ | 10. $(\frac{5}{6} \cdot 0)(21)$ |

Evaluate each expression for the given values of the variables.

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| 11. $4t + 2u^2 - u^3$; $t = 2$ and $u = 1$ | 12. $(2a)^2 - (b^3 - a^2)$; $a = -3$ and $b = 2$ |
| 13. $5y + 6z^2 - y^3$; $y = -4$ and $z = 5$ | 14. $(2h)^3 - (k^3 - h^2)$; $h = -1$ and $k = -3$ |
15. Name the subset(s) of the real numbers to which each number belongs. Then order the numbers from least to greatest.

$$-14, 1\frac{3}{4}, \sqrt{2}$$

16. Estimate $\sqrt{35}$ to the nearest integer.
17. Which property is illustrated by $6 \times 5 = 5 \times 6$?

Do you UNDERSTAND?

18. **Writing** What word phrases represent the expressions $5 + (-3x)$ and $-3x + 5$? Are the two expressions equivalent? Explain.
19. **Reasoning** Use grouping symbols to make the following equation true. $5^3 \div 5 + 20 = 5$