

9-2 Skills Practice

p. 473: 42 - 48 even

The Real Number System

Name all of the sets of numbers to which each real number belongs. Let **N** = natural numbers, **W** = whole numbers, **Z** = integers, **Q** = rational numbers, and **I** = irrational numbers.

- | | | |
|---------------------|------------------|--------------------|
| 1. 12 | 2. 25 | 3. -5 |
| 4. $\frac{1}{8}$ | 5. $\frac{1}{9}$ | 6. 0.343434... |
| 7. $\sqrt{31}$ | 8. $\sqrt{7}$ | 9. $\frac{25}{5}$ |
| 10. $-\frac{32}{4}$ | 11. 6.54 | 12. 24.6 |
| 13. 418 | 14. 0 | 15. 0.050050005... |

Determine whether each statement is *sometimes*, *always*, or *never* true.

16. A whole number is a rational number.
17. A rational number is a natural number.
18. A negative number is an integer.
19. Zero is a natural number.

Replace each \bullet with $<$, $>$, or $=$ to make a true statement.

- | | |
|-------------------------------------|----------------------------------|
| 20. $\sqrt{4} \bullet 2\frac{3}{7}$ | 21. $\sqrt{5} \bullet 2.1$ |
| 22. $-\sqrt{12} \bullet -3.5$ | 23. $\sqrt{104.04} \bullet 10.2$ |
| 24. $7.8 \bullet \sqrt{55}$ | 25. $15.1 \bullet \sqrt{231}$ |

Order each set of numbers from least to greatest.

26. $5\frac{1}{3}, 5.3, \sqrt{28}, 2\frac{1}{4}$
27. $\sqrt{53}, 7\frac{1}{4}, \frac{36}{5}, 7.27$
28. $-9.35, -\sqrt{72.25}, -9\frac{2}{10}, -9$

ALGEBRA Solve each equation. Round to the nearest tenth, if necessary.

- | | | |
|------------------|------------------|--------------------|
| 29. $a^2 = 64$ | 30. $d^2 = 169$ | 31. $f^2 = 441$ |
| 32. $76 = g^2$ | 33. $115 = h^2$ | 34. $k^2 = 450$ |
| 35. $b^2 = 4.41$ | 36. $y^2 = 0.36$ | 37. $m^2 = 0.0025$ |