

# Practice 1-3

Exploring Real Numbers

Name the set(s) of numbers to which each number belongs.

- |               |                    |           |                |
|---------------|--------------------|-----------|----------------|
| 1. $-0.002$   | 2. $12\frac{1}{2}$ | 3. $8$    | 4. $5\pi$      |
| 5. $\sqrt{7}$ | 6. $-22$           | 7. $-3.4$ | 8. $\sqrt{36}$ |

Decide whether each statement is *true* or *false*. If the statement is false, give a counterexample.

- |   |                                      |
|---|--------------------------------------|
| 9. Every whole number is an integer.        | 10. Every integer is a whole number. |
| 11. Every rational number is a real number. | 12. Every multiple of 7 is odd.      |

Use  $<$ ,  $=$ , or  $>$  to compare.

- |   |   |   |
|---|---|---|
| 13. $-10.98 \blacksquare -10.99$              | 14. $-\frac{1}{3} \blacksquare -0.3$          | 15. $-\frac{11}{5} \blacksquare -\frac{4}{5}$ |
| 16. $-\frac{1}{2} \blacksquare -\frac{5}{10}$ | 17. $-\frac{3}{8} \blacksquare -\frac{7}{16}$ | 18. $\frac{3}{4} \blacksquare \frac{13}{16}$  |

Write in order from least to greatest.

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|--|--|--|
| 19. $-\frac{8}{9}, -\frac{7}{8}, -\frac{22}{25}$ | 20. $-3\frac{4}{9}, -3.45, -3\frac{12}{25}$    | 21. $-\frac{1}{4}, -\frac{1}{5}, -\frac{1}{3}$ |
| 22. $-1.7, -1\frac{3}{4}, -1\frac{7}{9}$         | 23. $-\frac{3}{4}, -\frac{7}{8}, -\frac{2}{3}$ | 24. $2\frac{3}{4}, 2\frac{5}{8}, 2.7$          |

Determine which set of numbers is most reasonable for each situation.

25. the number of dolphins in the ocean
26. the height of a basketball player
27. the number of pets you have
28. the circumference of a compact disk

Find each absolute value.

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|-----------------------------------|--------------|---------------|-----------------------------------|
| 29. $\left  \frac{3}{10} \right $ | 30. $ -327 $ | 31. $ -3.46 $ | 32. $\left  -\frac{1}{2} \right $ |
|-----------------------------------|--------------|---------------|-----------------------------------|

33. Name the set(s) of numbers to which each number in the table belongs. Choose among: whole numbers, integers, rational numbers, irrational numbers, and real numbers.

Type of Account	Principal	Rate	Time (years)	Interest
Checking	\$154.23	0.0375	$\frac{30}{365}$	\$.48
Savings	\$8000	0.055	$3\frac{1}{2}$	\$1540