

Practice 1-3

Exploring Real Numbers

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

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|---------------|--------------------|-----------|----------------|
| 1. -0.002 | 2. $12\frac{1}{2}$ | 3. 8 | 4. 5π |
| 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.

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|---|--------------------------------------|
| 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.

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|---|---|---|
| 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 sets(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
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