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. $5p$

5. $\sqrt{7}$

6. -22

7. -3.4

8. $\sqrt{36}$

Is each statement *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 ■ -10.99

14. $-\frac{1}{3}$ ■ -0.3

15. $-\frac{11}{5}$ ■ $-\frac{4}{5}$

16. $-\frac{1}{2}$ ■ $-\frac{5}{10}$

17. $-\frac{3}{8}$ ■ $-\frac{7}{16}$

18. $\frac{3}{4}$ ■ $\frac{13}{16}$

Order the numbers in each group from least to greatest.

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.

29. $\left|\frac{3}{10}\right|$

30. |2327|

31. |23.46|

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.

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