

# Practice 1-1

## Properties of Real Numbers

**Simplify.**

- |                               |                |                                |                 |
|-------------------------------|----------------|--------------------------------|-----------------|
| 1. $- 4.2 $                   | 2. $ 12 - 16 $ | 3. $\left -\frac{7}{6}\right $ | 4. $ 3  -  -2 $ |
| 5. $\left \frac{2}{3}\right $ | 6. $0.3 -6 $   | 7. $ 14 - 8 $                  | 8. $ -0.01 $    |

**Replace each \$ with the symbol <, >, or = to make the sentence true.**

- |                             |                          |                          |                            |
|-----------------------------|--------------------------|--------------------------|----------------------------|
| 9. $-\sqrt{6} \$ \sqrt{10}$ | 10. $\frac{3}{2} \$ 1.5$ | 11. $0.06 \$ 0.6$        | 12. $4 \$  -4 $            |
| 13. $-0.4 \$ 0$             | 14. $- -7  \$  -7 $      | 15. $0.9 \$ \frac{2}{3}$ | 16. $\sqrt{2} \$ \sqrt{5}$ |

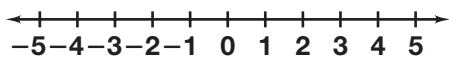
**Name all the sets of numbers to which each number belongs.**

- |          |                    |                          |                    |
|----------|--------------------|--------------------------|--------------------|
| 17. $-5$ | 18. $0$            | 19. $\sqrt{5}$           | 20. $2.\bar{7}$    |
| 21. $9$  | 22. $\frac{10}{7}$ | 23. $1.2345267831 \dots$ | 24. $-\frac{4}{2}$ |

**Name the property of real numbers illustrated by each equation.**

- |                                 |   |
|---------------------------------|---|
| 25. $\pi + 3 = 3 + \pi$         | 26. $\sqrt{2} + 0 = \sqrt{2}$             |
| 27. $(2 + x) + 3 = 2 + (x + 3)$ | 28. $\frac{5}{9} \cdot \frac{9}{5} = 1$   |
| 29. $16(3t + 4v) = 48t + 64v$   | 30. $\sqrt{2} \cdot 3 = 3 \cdot \sqrt{2}$ |
| 31. $0.01 \cdot 1 = 0.01$       | 32. $\frac{3}{2} \cdot \frac{2}{3} = 1$   |
| 33. $7 + (-7) = 0$              | 34. $2(xy) = (2x)y$                       |

**Graph the number on the following number line. Estimate if necessary.**



- |                 |                   |           |          |
|-----------------|-------------------|-----------|----------|
| 35. $-\sqrt{2}$ | 36. $\frac{3}{2}$ | 37. $0.5$ | 38. $-1$ |
|-----------------|-------------------|-----------|----------|

**Find the opposite and the reciprocal of each number.**

- |                     |         |                   |          |
|---------------------|---------|-------------------|----------|
| 39. $-2\frac{1}{2}$ | 40. $3$ | 41. $\frac{5}{9}$ | 42. $-4$ |
|---------------------|---------|-------------------|----------|

**Which set of numbers best describes the values of each variable?**

43. the number of stops  $N$  a commuter train makes on a certain day
44. the high  $H$  and low  $L$  for a certain stock during a period of  $n$  weeks
45. the average time per lap  $t$  it takes a race car to complete  $n$  laps