

Name:
Instructor:

Date:
Section:

Practice Set 1.3

Use the choices to fill each blank.

additive inverse(s) additive identity double negative property absolute value
multiplicative inverse(s) multiplicative identity distributive property commutative property

- $\frac{1}{3}$ and 3 are called _____.
- $\frac{3}{4}$ and $-\frac{3}{4}$ are called _____.
- $-(-5) = 5$ is an example of the property called _____.
- The _____ of a negative number is the additive inverse (opposite) of the number.

Evaluate each absolute value expression.

- $|-7|$ 5. _____
- $-|-8|$ 6. _____
- $|11|$ 7. _____
- $-\left|\frac{5}{6}\right|$ 8. _____

Insert $<$, $>$, or $=$ to make a true statement.

- $|-8|$ -8 9. _____
- $-|-9|$ $-|11|$ 10. _____
- $-|-1|$ -1 11. _____

List the values from smallest to largest.

- $-9, -11, |-9|, -|17|, -|-13|$ 12. _____

Evaluate.

- $-7 + (-4)$ 13. _____
- $-11 - (-7)$ 14. _____
- $-12 + 9$ 15. _____
- $-\frac{2}{3} - \left(-\frac{5}{7}\right)$ 16. _____

Practice Set 1.3

Evaluate.

- | | | |
|--|------------------------------------|-----------|
| 17. $-8 \cdot 9$ | 18. $(-7)(-4)$ | 17. _____ |
| | | 18. _____ |
| 19. $-4\left(-\frac{7}{8}\right)$ | 20. $(-1.2)(3.2)$ | 19. _____ |
| | | 20. _____ |
| 21. $\left(-\frac{3}{4}\right) \div 3$ | 22. $-16 \div (-8)$ | 21. _____ |
| | | 22. _____ |
| 23. $\left -\frac{4}{9}\right \div 8$ | 24. $\frac{3}{2} \div \frac{1}{3}$ | 23. _____ |
| | | 24. _____ |

Name each property illustrated.

- | | | |
|-----------------------------------|--|-----------|
| 25. $x + (2y + 3) = (x + 2y) + 3$ | 26. $3(x + y) = 3 \cdot x + 3 \cdot y$ | 25. _____ |
| | | 26. _____ |
| 27. $3xy = 3yx$ | 28. $1 \cdot x = x$ | 27. _____ |
| | | 28. _____ |

List the additive inverse (opposite) and multiplicative inverse (reciprocal) of each number.

- | | | |
|----------|-------------------|-----------|
| 29. -5 | 30. $\frac{2}{7}$ | 29. _____ |
| | | 30. _____ |

Problem Solving

31. The highest and lowest recorded temperature extremes occurred in El Azizia, Libya on September 13, 1922 (136°F) and in Vostok, Antarctica on July 21, 1983 (-129°F). [Source: *World Almanac and Book of Facts*]
- Determine the difference between these two temperatures. 31. _____

Challenge

32. Evaluate $-1 + 2 - 3 + 4 - 5 + 6 - 7 + \dots + 98 - 99 + 100$. 32. _____