

Lesson 62 • Graphing Solutions to Inequalities on a Number Line

Power Up

- *Facts*
- *Mental Math*
- *Problem Solving*

New Concepts

- *Examples*
- *Practice Set*

Written Practice

Facts

Express each percent as a reduced fraction.


$1\% = \frac{1}{100}$	$100\% = 1$	$50\% = \frac{1}{2}$	$70\% = \frac{7}{10}$	$20\% = \frac{1}{5}$
$150\% = 1\frac{1}{2}$	$66\frac{2}{3}\% = \frac{2}{3}$	$5\% = \frac{1}{20}$	$12\frac{1}{2}\% = \frac{1}{8}$	$90\% = \frac{9}{10}$
$25\% = \frac{1}{4}$	$2\% = \frac{1}{50}$	$10\% = \frac{1}{10}$	$33\frac{1}{3}\% = \frac{1}{3}$	$4\% = \frac{1}{25}$
$40\% = \frac{2}{5}$	$16\frac{2}{3}\% = \frac{1}{6}$	$75\% = \frac{3}{4}$	$30\% = \frac{3}{10}$	$80\% = \frac{4}{5}$

Written Practice

1. 72 in.

2. 27 not preserved

3. a.  1 cm, 1 cm, 1 cm

b.  2 cm, 2 cm, 2 cm

c. 8 cm^3 , 8

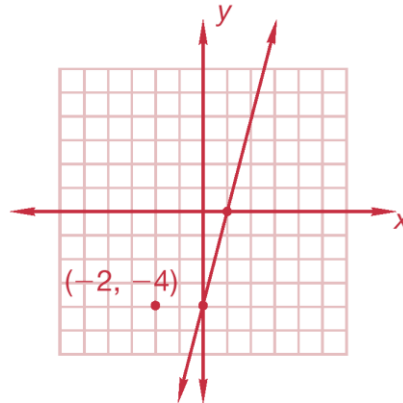
4. mean: 303, median: 303, mode: 310

5. $x = 135^\circ$

6. no

7. The smaller wheel turns twice

6.



8. a. 18 yd^2 , 22 yd

b. trapezoid

9. 10 m/sec

10. $300 \text{ min} \cdot \frac{1 \text{ hr}}{60 \text{ min}} = 5 \text{ hr}$

11. a. {BB, BR, BW, RB, RR, RW, WB, WR, WW}

b. $\frac{1}{3}$

12. a. 1.25

b. $\frac{5}{4}$ or $1\frac{1}{4}$

Written Practice

continued

13. A 10-foot long 1×6 is long enough. With a calculator we can find that the diagonal (hypotenuse) is less than 116 inches, which is less than 10 feet (120 in.). Without a calculator we find that a 10-foot diagonal from an 8-foot (96 in.) wall will reach 6 feet (72 in.). However, the diagonal only needs to reach 64 inches, so a 10-foot board is more than long enough.

14. 0

15. $2e$

16. 0

17. $x^2 - 4$

18. $x = 1$

19. $x = 1010$

20. $x = -3$

21. $x = \frac{3}{4}$

22. a. $y = \frac{1}{2}x - 1$

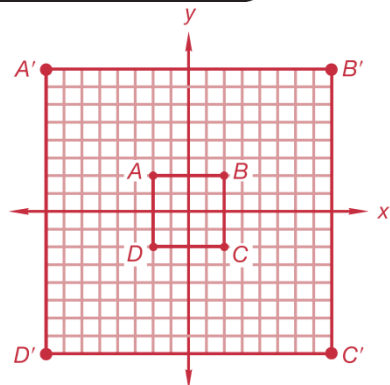
b. $y = -2x + 4$



Written Practice

continued

25. a.



b. $A'(-8, 8)$, $B'(8, 8)$, $C'(8, -8)$, and $D'(-8, -8)$