Lesson 57 • Operations with Small Numbers in Scientific Notation

Power Up

– ***Facts***

– ***Mental Math***

– ***Problem Solving***

New Concepts

– ***Examples***

– ***Practice Set***

Written Practice

Facts Write each number in scientific notation.

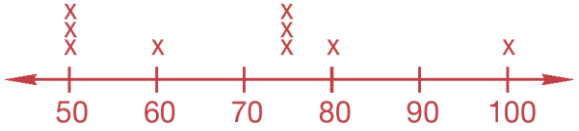
$186{,}000 = 1.86 \times 10^5$	$0.0002 = 2 \times 10^{-4}$
$2{,}050{,}000 = 2.05 \times 10^6$	$\frac{1}{1{,}000{,}000} = 1 \times 10^{-6}$
15 million $= 1.5 \times 10^7$	12 thousandths $= 1.2 \times 10^{-2}$

Write each number in standard form.

$3 \times 10^5 = 300{,}000$	$1 \times 10^{-3} = 0.001$
$3.75 \times 10^4 = 37{,}500$	$3.5 \times 10^{-5} = 0.000035$
$4.05 \times 10^3 = 4050$	$2.04 \times 10^{-2} = 0.0204$

Written Practice

1. 27,600
2. 219 days
3. 12 problems
4. a.



   b. range \$50; mean \$68; median \$75; mode \$50 and \$75

   c. The most common amounts that people donated were \$50 and \$75.

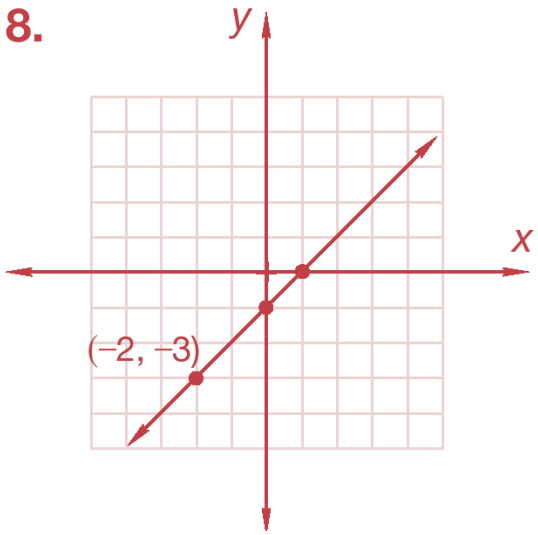
5. $x = 9$
6. 30°
7. a. {AA, AA, AA, AA, AB, AB, AC, AC, BA, BA, BB, BC, CA, CA, CB, CC}

   b. $\frac{12}{16} = \frac{3}{4}$

Written Practice *continued*

8. yes
9. $m = 2$
10. $x = 9$
11. $x = \frac{1}{4}$
12. $p = -1$
13. 19 m
14. 14 m^2
15. $x^2 + 4x + 4$
16. $\frac{1}{4} = \frac{1}{4}$
17. a. 325 mi
    b. 65 mi/hr

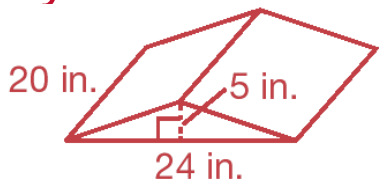
8.



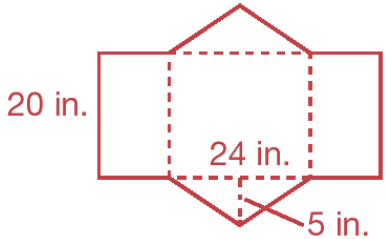
Written Practice *continued*

18. 1760 yd

19. a.



b.



20. a. 1200 in.^{3}

b. 1120 in.^{2}

21. $\frac{r^2}{m}$

22. $\frac{2}{3} = \frac{2}{3}$

23. a. $91\frac{2}{3}$ %;

b. $0.91\overline{6}$

24. B

25. a. Sample space = {AA, AB, AC, BA, BB, BC, CA, CB, CC}

b. $\frac{5}{9}$

c. $\frac{4}{9}$

26. −2

27. a. $y = x + 2$

b. $y = x - 2$

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

Written Practice *continued*

29. $x = 2, -2$

30. a. A

b. B