

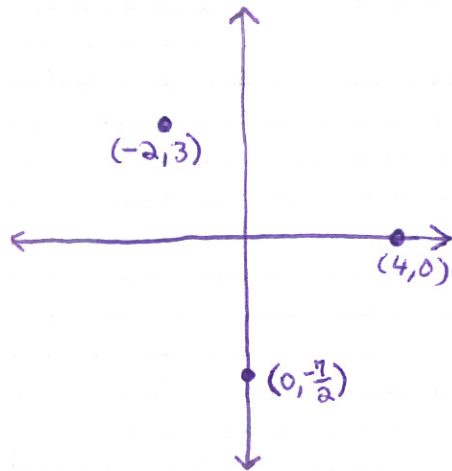
Homework Answer Key

Course 3 Lesson # 16

1. 54 miles per hour (mph)	2. 84 people	3. Separating $41 - 28 = l$ $l = 13$ exercises
4. comparing $30 - 16 = d$ $d = 14$ teams	5. 4	6. 1,000
7. $\frac{13}{14}$	8. $1\frac{3}{8}$	9. Perimeter = 26m Area = 30m ²
10. a. $4x^2y^2z$ b. $3a^2b^3c$	11. a. $\sqrt{16} < 7$ b. $\sqrt{81} = 3^2$	12. $z = 8$
13. $a = 60$	14. $m = 8$	15. $x = 21$
16. \$600	17. 468	18. Given: $8 \cdot (49 \cdot 25)$ Commutative Prop: $8 \cdot (25 \cdot 49)$ Associative Prop: $(8 \cdot 25) \cdot 49$ multiply $8 \cdot 25$: $200 \cdot 49$ multiply $200 \cdot 49$: 9800
19. $p = 440$	20. mean = 5 median = 5	21. $400 = 2^4 \cdot 5^2$
22. 75	23. 0.125 12.5% or $12\frac{1}{2}\%$	24. $d = 110$ miles
25. 2	26. -198	27. 667 hours
28. A. integers D. rational numbers F. real numbers	29. E. irrational numbers F. real numbers	30. D. rational numbers F. real numbers

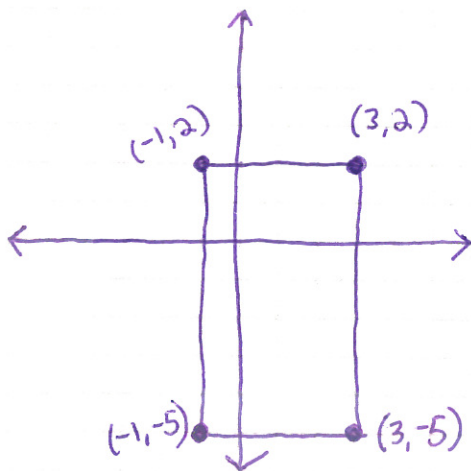
1. 120 trees	2. 15°F	3. {1, 3, 5, 7, ...}
★ 4. Yards are greater in length than feet, so the # of feet must be more than 48. 48 yards = 144 feet	5. 121	★ 6. 11
★ 7. $1\frac{1}{4}$	★ 8. $2\frac{1}{2}$	9. 66 yd of fencing 270 yd ² of sod
10. a. $5x^2y$ b. $6x^2y^3$	11. a. $\sqrt{100} > -10$ b. $\sqrt{25} < \sqrt{36}$	12. $x = 9$
13. $x = 36$	14. $x = 8$	15. $x = 8$
16. (write a story for one of the equations from problems 12-15) Answers will vary.	17. $p = 24 \text{ in.}$	18. $90 = 2 \cdot 3^2 \cdot 5$
19. 1 by 18 2 by 9 3 by 6	20. mean = 3.5 median = 3 mode = 3 range = 4	21. mode (3)
22. $17 + 3 + 28 = 48$ Commutative Property of Addition	23. (graph on back) (4, 0) appears to be farthest from the origin.	24. (graph on back) $P = 22 \text{ units}$ $A = 28 \text{ units}^2$
25. $0, \frac{3}{4}, 1, 1\frac{1}{2}, 1.3, \frac{4}{3}$	26. A. Price of \$20 is reduced by 30%	★ 27. $6 \cdot \$800 = \4800 Yes, the budget is reasonable.
★ 28. a. 5 b. 3	29. (estimate using 8% of \$800) sales tax \approx \$64	★ 30. $\frac{6}{25}$; 24%

#23



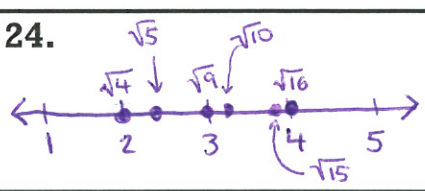
$(4, 0)$ appears to be the farthest from the origin

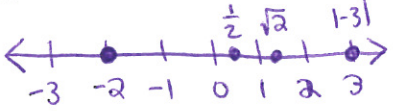
#24



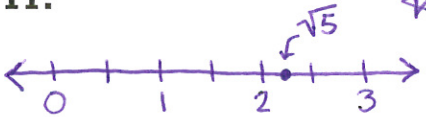
height: 7 units
width: 4 units

Perimeter = 22 units
Area = 28 units²

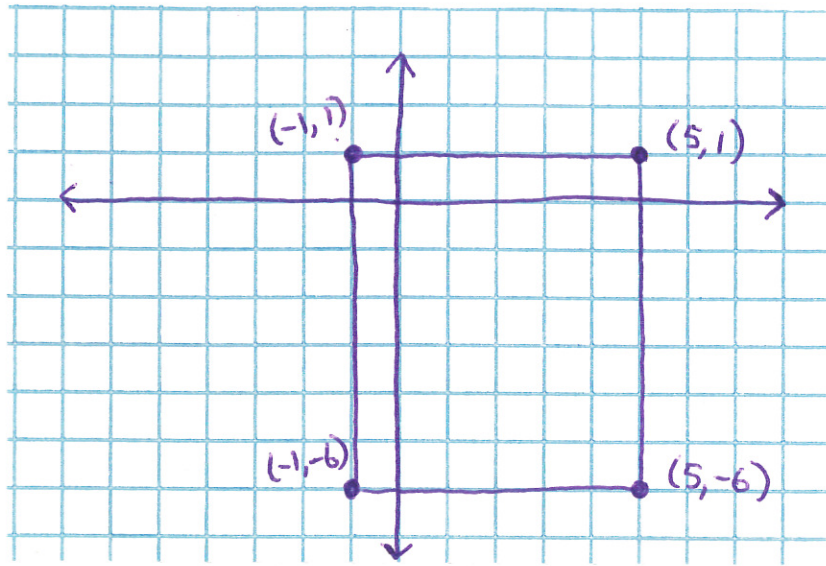
1. 54 people	2. 82°F	3. $\frac{7}{10}$; 70%
4. 48 cups	5. 15 min./mile 4 miles/hour	6. 144
7. 12	★ 8. $\frac{7}{24}$	★ 9. $5\frac{1}{6}$
10. a. $ -10 \ominus \sqrt{100}$ b. $\sqrt{5} \circlearrowright 2$	11. $x = 33$	12. $x = 8$
13. $x = 25$	14. $x = 8$	15. $\{5, 10, 15, 20, \dots\}$
16. 150 ft ² 50 ft. of molding	17. $128 = 2^7$	18. four
19. $-1, -\frac{4}{5}, 0, 1, \frac{5}{4}$	20. a. $ \frac{-4}{5} \circlearrowleft \frac{5}{4} $ b. $0.8 \circlearrowright \frac{\pi}{10}$	★ 21. $\frac{1}{8}$, 12.5% or $12\frac{1}{2}\%$
★ 22. \$6	★ 23. 8% of \$100 $(\$8)$	★ 24. 
★ 25. $\sqrt{40}$ cm between 6cm and 7cm	★ 26. a. obtuse b. straight c. acute d. right	★ 27. a. $m\angle ABC = 120^\circ$ b. $m\angle ABE = 90^\circ$
★ 28. 60mph • 2 hr. = (120mi)	★ 29. A. Integers B. whole numbers D. rational numbers F. real numbers	★ 30. E. irrational numbers F. real numbers

1. \$7.84	2. 55cm	3. 16 bottles
4. 1 min.	5. 15	6. 
7. $\frac{3 \cdot 5 \cdot 5 \cdot 5}{2 \cdot 2 \cdot 2 \cdot 5 \cdot 5 \cdot 5} = \frac{3}{8}$	8. \star a. $4 > \frac{7}{2}$ b. $7 = \sqrt{49}$	9. \star $\frac{29}{45}$
10. \star $\frac{2}{5}$	11. $\frac{2}{5} ; 0.40$	12. \$105
13. \star a. y^4 b. $3x^3y^2$	14. $(0, -3)$ Area = 14 square units Perimeter = 18 units	15. 32
16. 1,000,000	17. \star 12	18. \star 144 in^2
19. \star 512	20. \star 2	21. \star 30
22. 440 m^2	23. \star 100m	24. $m = 36$
25. \star $W = 50$	26. $c = 8$	27. $x = 9$
28. $60 \text{ mph} \cdot 4 \text{ hrs.} =$ 240 miles	29. \star $A = 63 \text{ mm}^2$	30. A. integers B. whole numbers D. rational numbers F. real numbers

~~***~~ For Problems 24-27, select one equation and write a word problem to match.

1. \$1.12	2. 31 liters	3. 18 baskets
4. 12 quarts	5. $60 = 2^2 \cdot 3 \cdot 5$	6. (graph on back) $p = 26$ units
7. a. mean: \$49.86 median: \$50 mode: \$49, \$50 range: \$4 b. range (\$4)	8. mean	9. a. $\frac{2}{3} < \frac{3}{2}$ b. $ -7 = 7 $
10. $\frac{12}{100} ; 0.12$	11. 	12. a. right, scalene b. obtuse, isosceles
13. a. $\angle RMQ$ (or $\angle QMR$) b. $\angle PMQ$ (or $\angle QMP$) c. $\angle PMR$ (or $\angle RMP$)	14. 6 cm^2	15. 729
16. 169	17. 8	18. 6
19. 75	20. $\frac{1}{3}$	21. a. $a^4 b^2$ b. $2x^4 y^3$
22. $(-1, 3)$	23. $m = 20$	24. $x = 10$
25. $x = 20$	26. $x = 100$	27. 144
28. $A = 625 \text{ ft}^2$	29. $3\frac{1}{6} + (4\frac{1}{6} + 1\frac{2}{3})$ Given $(3\frac{1}{6} + 4\frac{1}{6}) + 1\frac{2}{3}$ Associative Prop. $7\frac{1}{3} + 1\frac{2}{3}$ Add $3\frac{1}{6}$ and $4\frac{1}{6}$ 9 Add $7\frac{1}{3}$ and $1\frac{2}{3}$	30. C. integers E. rational numbers F. real numbers

#6



height = 7 units
width = 6 units

Perimeter = 26 units