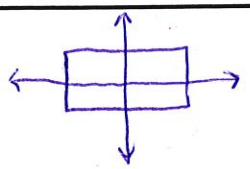
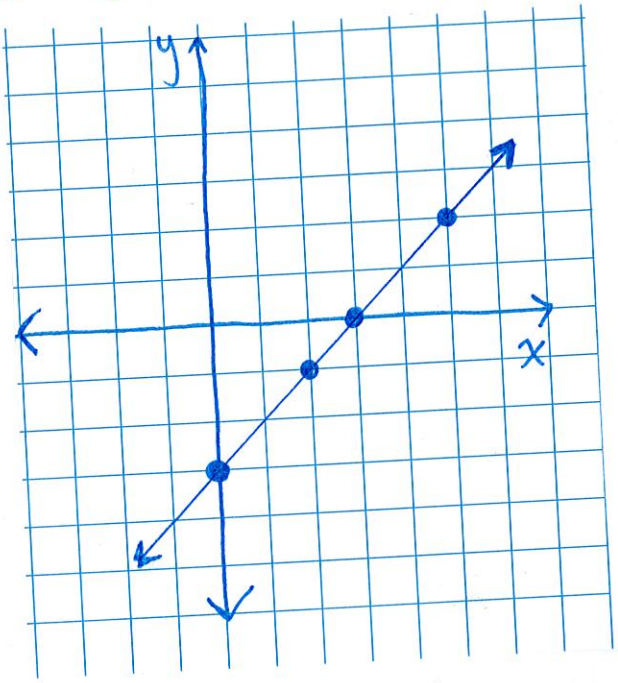
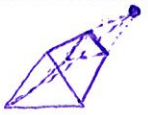
Homework Answer Key **Course 3 Lesson # 41**

1. #172	2. $\frac{4}{3}$	3. 3 socks
4. Yes $4=\frac{1}{2}(2)+3$ $4=1+3$ $4=4$ ✓	5. 	6. B.
7. a. $154m^2$ b. 44m	8. a. πcm^2 b. $2\pi cm$	9. $4-11=t$ $t=-7°F$
10. $m=-1.4$	11. $x=10.7$	12. $36m^2$
13. 30m	14. a. $-8m+28x-36$ b. $3(x^2+x+1)$	15. $-8x$
16. $3\frac{9}{10}$	17. $2\frac{7}{10}$	18. 2
19. 2	20. $\frac{2}{27}$	21. 7
22. $8x^6y^3$	23. a. 0.55 b. 55%	24. a. {SA, SM, AS, AM, MS, MA} b. 2/3
25. $6y$	26. $3x^2+3x+3$	27. $E=40$
28. $3\pi ft^2$	29. 0 cm	30. a. Yanos subtracts 3 from Xena's number b. $y=x-3$ c. (on back)

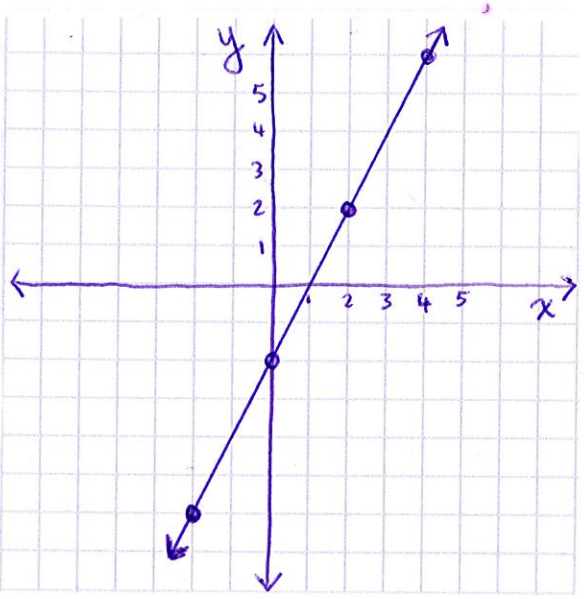
#30 $y = x - 3$



Homework Answer Key **Course 3 Lesson #** 42

1. $220	**2.** 7 to 3 or 7/3	**3.** 2500 m^3 660,000 gallons of water
4. yes. $y = \frac{1}{4}x + 1$ $3 = \frac{1}{4}(8) + 1$ $3 = 2 + 1$ $3 = 3$ ✓	**5.** a.  b. triangular prism	**6.** D. ΔB and ΔC are congruent; both are similar to ΔA
7. a. 616 ft^2 b. 88 ft.	**8.** 12 weeks	**9.** a. multiply x by 2 then subtract 2 b. $y = 2x - 2$ c. (see graph on back)
10. 48	**11.** $4\frac{1}{8}$	**12.** $\frac{5}{27}$
13. 4	**14.** $\frac{1}{16}$	**15.** $-21x$
16. $s = -4.3$	**17.** $m = 20.6$	**18.** 0.374 in^3
19. a. $-12n + 18w - 15$ b. $8(y^2 + y + 1)$	**20.** a. $\frac{1}{5}$ b. $\frac{3}{5}$	**21.** a. 8π m b. 16π m^2
22. $\frac{5}{1} = \frac{c}{20}$ $c = 100$ cars	**23.** $x = 2, -2$	**24.** no solution
25. $x = 3, -3$	**26.** $x = 16, -16$	**27.** $-255 + 65 - 25 = d$ $d = -215$ depth is 215 m below the surface.
28. $2xy + 3y$	**29.** $x^2 + 2x + 6$	**30.** C. (A + B are not aligned with the origin; D. is not a straight line)

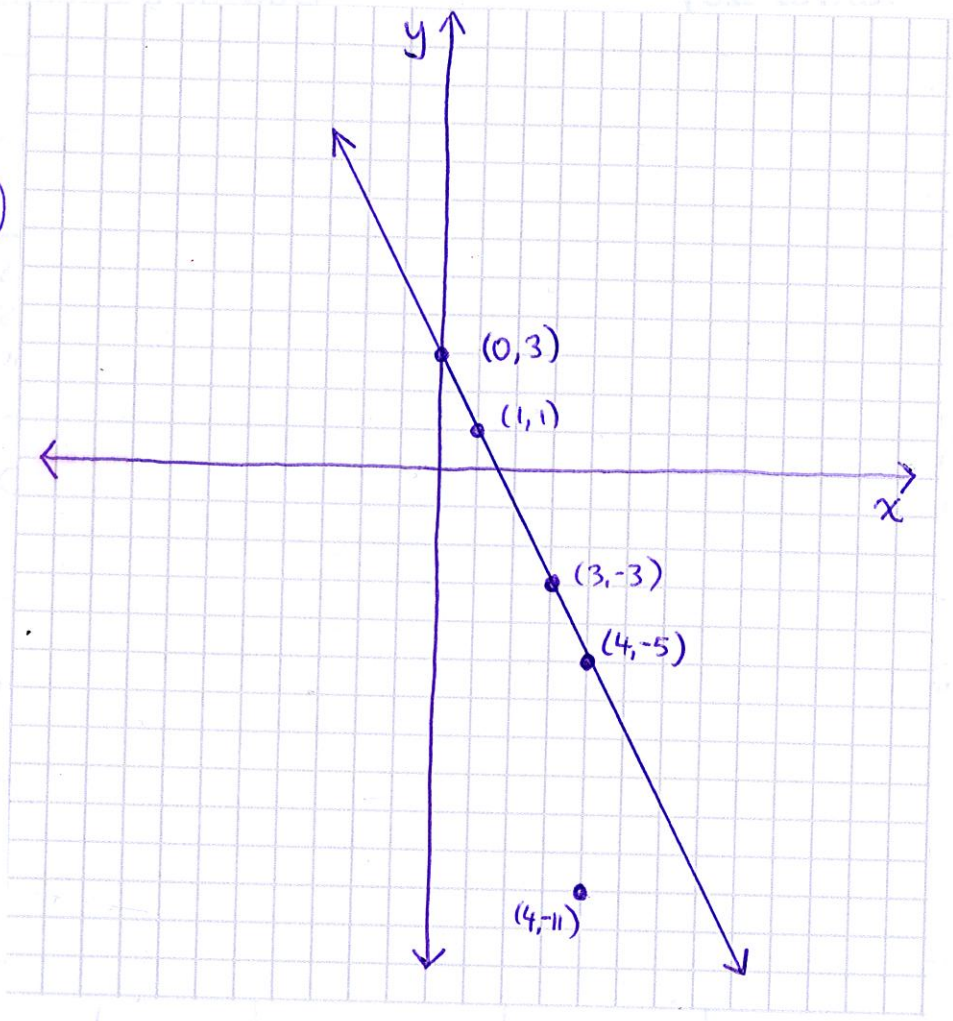
#9



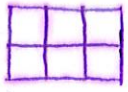
Homework Answer Key **Course 3 Lesson #** 43

1. 5 miles north	**2.** 1800 trees	**3.** 27 mph west
4. $198\ in^3$	**5.** $333\ in^2$	**6.** 6 edges 4 faces 4 vertices
7. (4, -11) is not on the line (see graph on back)	**8.** a. $36\pi\ in^2$ b. 12π in	**9.** $y = 50x$
10. $x = 12.1$	**11.** $x = 1.94$	**12.** $3900\ yd^2$
13. 300 yards	**14.** a. $-5x^2 + 5x - 20$ b. $7(x+1)$	**15.** $4w$
16. 0	**17.** $\frac{1}{8}$	**18.** $\frac{1}{4}$
19. $\frac{5}{8}$	**20.** 12	**21.** $x = 6, -6$
22. $x = 50, -50$	**23.** a. 0.5% or $\frac{1}{2}$ % b. $\frac{1}{200}$	**24.** a. $0.8\overline{3}$ b. $83\frac{1}{3}$%
25. $2^3 \cdot 3^2 \cdot 5^3 = 9000$	**26.** a. $\frac{1}{10}$ or 0.1 b. 1/4 or 0.25 c. No, the #s pictred were in different frequencies	**27.** $3x^2 + x$
28. 294	**29.** a. 120° b. $157\ in^2$	**30.** a. (see back for drawing) b. $46\ cm^2$ c. $14\ cm^3$

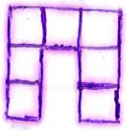
#7



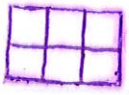
#30



Front view



Top view

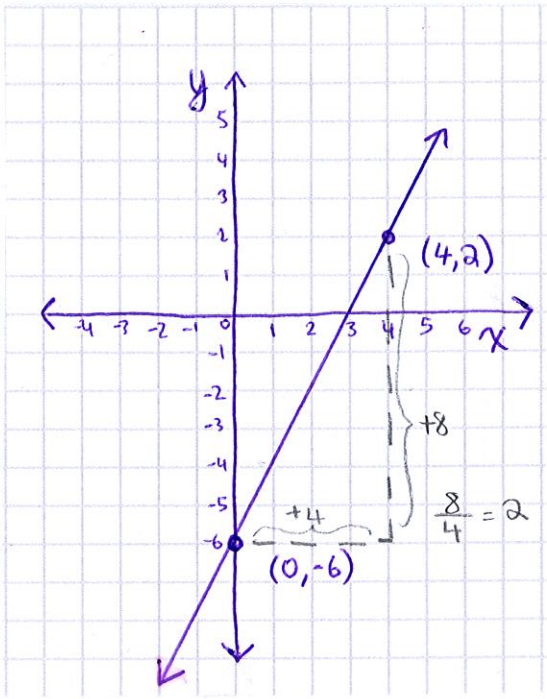


Right-side view

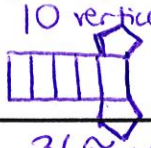
Homework Answer Key **Course 3 Lesson # 44**

1. $\frac{3}{5} = \frac{u}{260}$ $u = 156$ lobsters	2. A. 20	3. about 110 ft.
4. $135 in^2$	5. $17.5 ft^3$	6. 	coin purses	Dollars	 |---|---|---| 	1	4	 	2	8	 	3	12	 	4	16	 $y = 4x$ it is linear and proportional
7. About $113 ft^2$	8. a. No, when x is 9, y is 5 b. (15, 9)	9. $3\frac{3}{4}$
10. 4	11. -6	12. 8
13. $-24x^5y^4$	14. 5	15. 1
16. 10^5	17. Rafael is more likely. $P(F) = \frac{31}{75} = 0.413$ $P(R) = \frac{40}{83} = 0.482$	18. C. 18in.
19. 6 inches below normal.	20. 20 farmers	21. $\frac{3}{4}c = 12$ $c = 16$ Pedro has 16 caps.
22. 2	23. $3400 ft^2$	24. a. $\frac{1}{25}$, 0.04 b. $\frac{1}{25}$ b/c its easy to divide 25 by 25
25. $x = 5$	26. 100 sec.	27. $A = 64$ units^2 $P = 32$ units square
28. $10	29. (see graph on back) slope = 2	30. Hilbert charges $10 for the first hat and $5 for each additional hat. The relationship is NOT proportional so there is no constant of proportionality.

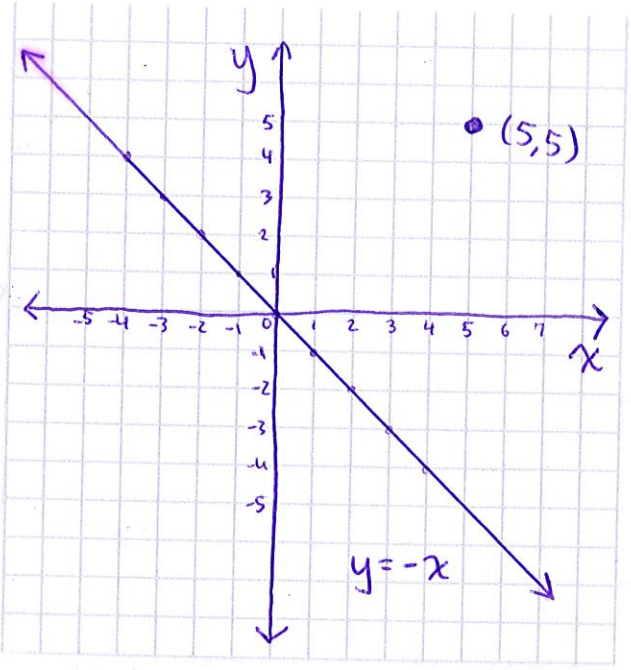
#29



Homework Answer Key **Course 3 Lesson # 45**

1. 24 goldfinches	**2.** 17.8 degrees	**3.** 300 hours.
4. 414 guests	**5.** a. 7 faces, 15 edges, 10 vertices b. 	**6.** 704 in^3
7. (see graph on back) NO ; slope = -1	**8.** a. 36π $units^2$ b. 1/3 c. 12π $units^2$	**9.** $y = x + 1.5$
10. a. isosceles b. 60 m^2 c. 36m	**11.** $x = 15$	**12.** $x = \frac{7}{9}$
13. $x = 12, -12$	**14.** $x = 6, -6$	**15.** $\frac{n}{2m}$
16. 0	**17.** 1	**18.** $\frac{24}{25}$
19. $-1 > -4$	**20.** $5 < 5.05$	**21.** a. 0.45, 9/20 b. Fraction because $40 is evenly divisible by 20 $\frac{9}{20} \cdot 40 = 18$ $18
22. a. $49\pi m^2$ b. $14\pi m$	**23.** a. about $150 m^2$ b. about 45m	**24.** 12
25. c. $7(3+5)$	**26.** He still has $62	**27.** 1224 in^2
28. Circumference of Venus = 37,994 km Earth is larger.	**29.** $5h = 6.85$ $h = 1.37$ Lisa is 1.37 meters tall.	**30.** (see table on back) constant of proportionality is 3/4. She'll need at least 13.5 cups of sauce.

#7



#30

Number (n) of servings	Number of cups of sauce (s)	Ratio $\frac{s}{n}$
4	3	$\frac{3}{4}$
8	6	$\frac{6}{8} = 3/4$
12	9	$\frac{9}{12} = 3/4$
16	12	$\frac{12}{16} = 3/4$
20	15	$\frac{15}{20} = 3/4$