

Homework Answer Key

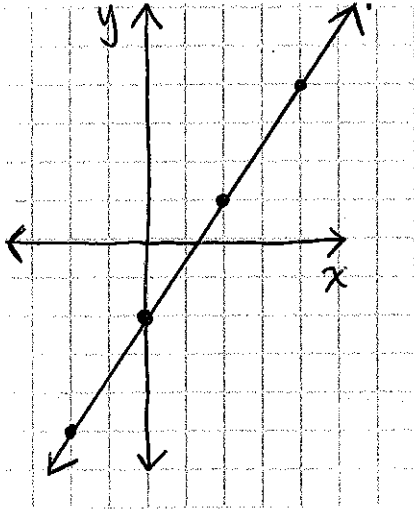
Course 3 Lesson # 46

★ 1. 8 pounds	★ 2. 3 oz.	3. 200 fleas
★ 4. 2.1×10^4	★ 5. 9.9×10^9	★ 6. slope = $\frac{3}{2}$ (see graph on back)
7. a. 7,850 square units b. 314 units	★ 8. 45cm^3	9. $y = 10x + 45$
10. a. 78ft^2 b. 46 ft.	11. $x = \frac{6}{7}$	12. $x = \frac{5}{12}$
13. $x = 3.15$	14. $x = 24$	15. a. $-6x^2 + 108x - 486$ b. $3(3x - 1)$
16. a. 0.55, 55% b. 55%; percents are typically used to communicate discounts.	17. $\frac{1}{3}$	18. -1
19. $\frac{1}{3}$	20. 0.0225	21. $x^3 + x^2y - 3xy^2$
★ 22. $3x - 9$	23. $x = 3, -3$	24. a. $\frac{3}{4}$ b. $\frac{1}{4}$
25. a. 1.5 or $1\frac{1}{2}$ b. 7.5 or $7\frac{1}{2}$	★ 26. a. 5 ft b. 2 in. by 4 in.	★ 27. 18cm^2
28. A. $\sqrt{80}$	★ 29. 54ft^2	★ 30. Graph B. Proportional b/c the graph is a line that contains the origin. $k = 144\text{ h}$; 144 is the constant of proportionality.

(k = loaves baked)
(h = # of hrs.)

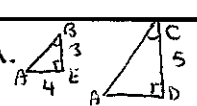
#6

$$y = \frac{3}{2}x - 2$$

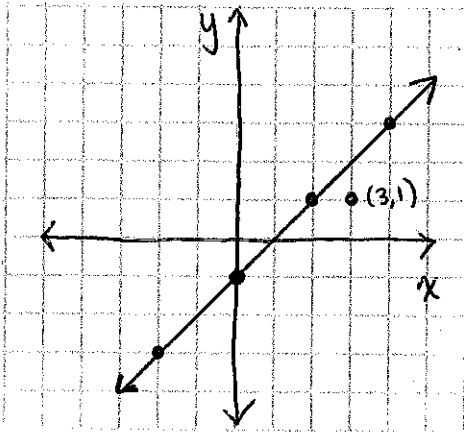


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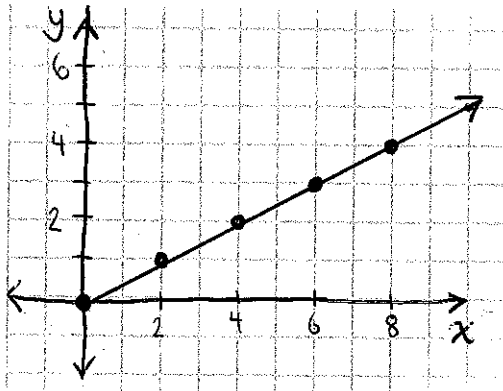
Course 3 Lesson # 47

1. 550 cars	2. 90 more uncommon cards	3. \$10.50
4. 1.2×10^8	5. No (3, 1) is not on the line (See graph on back)	6. a. $25\pi \text{ in}^2$ b. $10\pi \text{ in.}$
7. $3\pi^3$	8. $c = 37.68 \text{ in.}$ $\text{lyd.} = 36 \text{ in.}$ Pie has a circumference greater than lyd.	9. 76 m^2
10. 26m	11. $x = 9$	12. $x = 12 \frac{2}{5}$
13. $x = 4, -4$	14. $x = 32$	15. a. $-20r + 10d + 5$ b. $4(x-7)$
16. a. $\frac{1}{2}\%$ or 0.5% ; $\frac{1}{200}$ b. decimal is quickest to multiply.	17. $-2wx$	18. $\frac{1}{8}$
19. $2\frac{1}{3}$	20. 3	21. 90
22. 0	23. $5x + 8$	24. -2
25. a. $314\pi^2$ b. $\frac{2}{9}$ c. $70\pi^2$	26. a.  b. corresponding angles are all equal c. $\frac{5}{3}$	27. 9.0×10^{13}
28. a. $0.08\bar{3}$ b. $8\frac{1}{3}\%$ or $8.\bar{3}\%$	29. 288 in^2	30. a. $y = \frac{1}{2}x$ b. (see back for graph) c. yes, graph is a line including (0, 0). matches $y = kx$; constant of proportionality (k) is $\frac{1}{2}$.

#5 $y = x - 1$



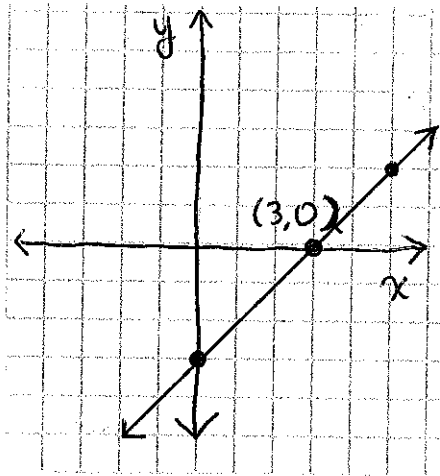
#30 $y = \frac{1}{2}x$



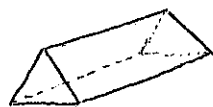
Homework Answer Key

1. 42 people	2. \$6.50	3. 53 students
4. 76%	5. $-\frac{1}{2}$	6. $\frac{b^2}{12c}$
7. $\frac{1}{6}$	8. 3	9. $\frac{3}{25}$
10. 4×10^3	11. 1.5×10^{12}	12. 0.0288
13. (3,0) is on the line (see graph on back)	14. a. 1256 cm ² b. 125.6 cm	15. 600 in ³
16. a. right triangle b. 120 cm ² c. 60 cm	17. $x = 5\frac{5}{6}$	18. $x = 1\frac{1}{2}$
19. $x = 10, -10$	20. $x = 0.8$	21. a. 2.5, 2 $\frac{1}{2}$ b. using percents, find 200%, then 50% and add them together
22. $abc - 2b^2$	23. $x^2y + x$	24. $y = 10x + 3$ Not proportional b/c the ratio y/x is not constant.
25. a. 12 sectors b. 4 in ²	26. 13.1 mph	27. 0.38 cm
28. 90° rotation	29. 482 in ²	30. $s = \frac{5}{3}t$; proportional $s = \text{servings}$ $t = \text{teaspoons salt}$ $k = \frac{5}{3}$

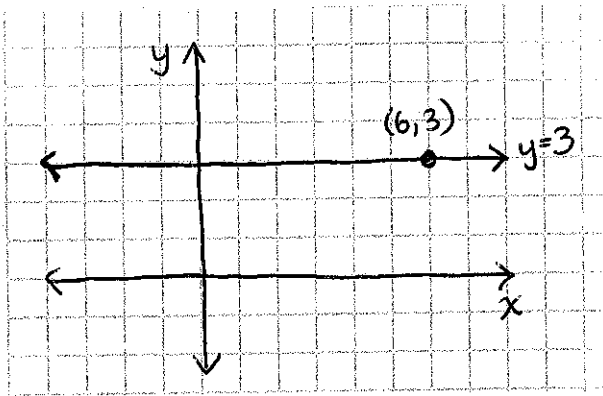
#13 $y = x - 3$



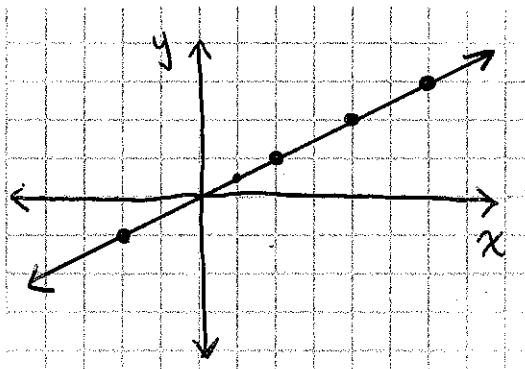
Homework Answer Key

<p>★ 1. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>miles</td> <td>3</td> <td>7</td> </tr> <tr> <td>min.</td> <td>18</td> <td>x</td> </tr> </table> 42 min.</p>	miles	3	7	min.	18	x	<p>★ 2. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>pounds</td> <td>30</td> <td>x</td> </tr> <tr> <td>weeks</td> <td>2</td> <td>5</td> </tr> </table> 75 lbs.</p>	pounds	30	x	weeks	2	5	<p>★ 3. a. $\frac{3}{10}$ b. $\frac{7}{10}$</p>
miles	3	7												
min.	18	x												
pounds	30	x												
weeks	2	5												
<p>★ 4. 7,400 more stars than stripes</p>	<p>5. \$10</p>	<p>6. $x=60$</p>												
<p>7. $x=1.4$</p>	<p>8. $x=3.6$</p>	<p>★ 9. $x=5$</p>												
<p>★ 10. 84%</p>	<p>★ 11. 70</p>	<p>★ 12. a. 4 b. line b c. line a d. Quadrant I</p>												
<p>★ 13. yes (6,3) is on the line (see graph on back)</p>	<p>14. 21 parents</p>	<p>15. 13.5 ft^3</p>												
<p>16. 12 edges 8 vertices 6 faces</p>	<p>17. C. trapezoid</p>	<p>18. $x=48^\circ$ $y=42^\circ$</p>												
<p>19. 0.21 $\frac{21}{100}$</p>	<p>20. 16</p>	<p>★ 21. </p>												
<p>22. a. The # Yanos says is $\frac{1}{2}$ of Xena's # b. $y = \frac{1}{2}x$ c. (see graph on back)</p>	<p>23. $3x + 7$</p>	<p>24. $2x^2 + x - 2$</p>												
<p>★ 25. $-\frac{1}{2}$</p>	<p>★ 26. 1</p>	<p>★ 27. $\frac{3}{4}$</p>												
<p>★ 28. 1.3×10^2</p>	<p>29. $x=2, -2$</p>	<p>★ 30. Shows relationship between speed and the RPMs. proportional bic pts. aligned w/ origin. $r=13s$ $k=13$ ↑ # of ↑ speed RPMs in mph</p>												

#13 $y = 3$



#22 $y = \frac{1}{2}x$



x	y
6	3
2	1
1	$\frac{1}{2}$
-2	-1

★ 1. about 600 people from out-of-state	2. \$1250	★ 3. Sometimes										
★ 4. $x=15$	★ 5. $x=16$	★ 6. $x=2.1$										
★ 7. $x=-1$	★ 8. $x=-4$	★ 9. $x=2$										
★ 10. 0	11. 1	12. $\frac{c^3}{x}$										
13. $\frac{1}{4}$	★ 14. 3×10^4	15. 10.8										
16. a. πm^2 b. $2\pi m$	17. $12H^3$	18. a. $64 m^2$ b. 40 m										
19. <table style="display: inline-table; border-collapse: collapse; vertical-align: middle;"> <tr><td style="border-right: 1px solid black; padding: 0 5px;">x</td><td style="padding: 0 5px;">4</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">0</td><td style="padding: 0 5px;">0</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">1</td><td style="padding: 0 5px;">40</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">2</td><td style="padding: 0 5px;">80</td></tr> </table> $y=40x$	x	4	0	0	1	40	2	80	20. a. 0.075 b. $\frac{3}{40}$	★ 21. a. corresponding angles are equal b. $\frac{2}{5}$ or 0.4 c. $x=6$		
x	4											
0	0											
1	40											
2	80											
22. 3	23. <table style="display: inline-table; border-collapse: collapse; vertical-align: middle;"> <tr><td style="border-right: 1px solid black; padding: 0 5px;">x</td><td style="padding: 0 5px;">y</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">2</td><td style="padding: 0 5px;">6</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">4</td><td style="padding: 0 5px;">12</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">6</td><td style="padding: 0 5px;">18</td></tr> <tr><td style="border-right: 1px solid black; padding: 0 5px;">8</td><td style="padding: 0 5px;">24</td></tr> </table> $y=3x$ linear and proportional	x	y	2	6	4	12	6	18	8	24	★ 24. $3200ft^2$
x	y											
2	6											
4	12											
6	18											
8	24											
★ 25. 1.8×10^3 buckets	★ 26. missed 10% of school days	★ 27. 3 games $3.50 + 5.50g = 20$ (solve + check)										
28. 1.7	★ 29. (see graph on back) $(-1, -2)$ is not on the line Slope = -2	30. Graph A. Not proportional b/c it is not aligned with the origin.										

#29

$$y = -2x$$

