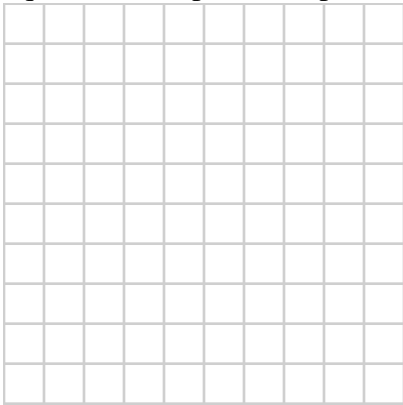


Algebra 1 Chapter 5 Practice Worksheet

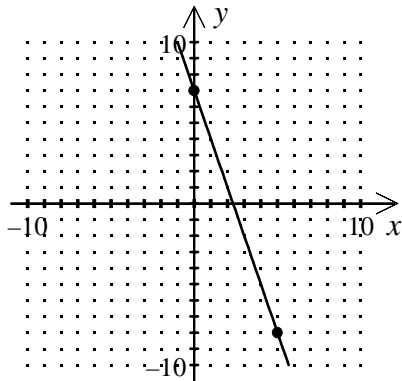
10. Find the y-intercept of the line containing the point $(7, -3)$ and having 0 slope.
11. Find the y-intercept of a line that passes through $(2, 0)$ and has a slope of 1.
12. Find the y-intercept of a line that passes through $(-2, -2)$ and has a slope of $\frac{1}{6}$.
13. A line passes through point $(-2, -2)$ and has a slope of 2. Sketch the line and write its equation in slope-intercept form.



14. Angela pays \$348 in advance on her account at the athletic club. Each time she uses the club, \$5 is deducted from the account. Write an equation that represents the value remaining in her account after x visits to the club. Find the value remaining in the account after 17 visits.
- [A] $V = 5 - 348x$; \$263 [B] $V = 348 - 5x$; \$1771
- [C] $V = 348 - 5x$; \$1757 [D] $V = 348 - 5x$; \$263
15. A family of five buys a bag of jelly beans. Each member eats exactly 5 jelly beans per day. The youngest boy decides to count how many beans remain after 22 days, and he counts 198. Write a linear equation which models the number of jelly beans in terms of the days that have passed.

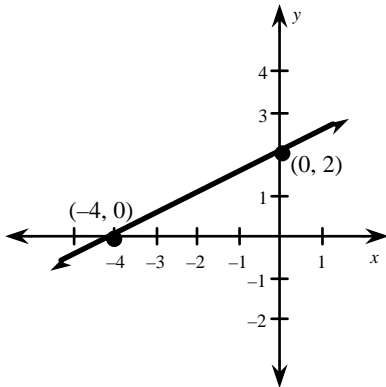
Algebra 1 Chapter 5 Practice Worksheet

16. Write an equation of the graph in slope-intercept form.



- [A] $y = -3x + 7$ [B] $y = -\frac{1}{3}x + 7$ [C] $y = 3x + 7$ [D] $y = \frac{1}{3}x + 7$

17. Write an equation of the line shown on the graph.

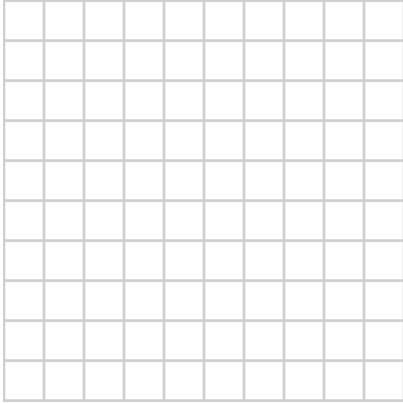


18. Sketch the line given by $3x - 4y = -12$. Label the x - and y -intercepts.



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19. Sketch the line given by $4x + 3y = 12$. Label the x - and y -intercepts.



20. In 1980 the average price of a home in Brainerd County was \$100,000. By 1985 the average price of a home was \$115,000. Write a linear model for the price of a home, P , in Brainerd County in terms of the year, t . Let $t = 0$ correspond to 1980.

21. In the table, x represents the number of weeks you worked at a summer job and y represents the balance in your savings account. Construct a scatter plot for this data and find an equation you think best represents the data.

x	1	2	3	4	5	6	7	8
y	14	22	26	29	35	39	46	49



22. For the data given, find the equation of the line of best fit.

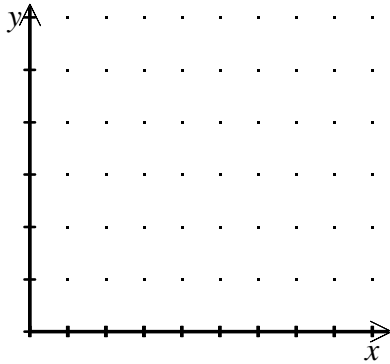
x	2	3	7	8	10
y	4	6	7	5	7

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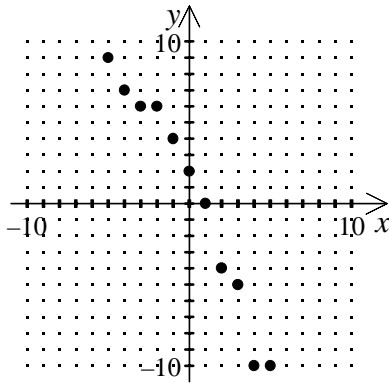
23. For the following data:

- A. Make a scatter plot of the data.
- B. Draw a line of fit for your scatter plot.
- C. Find an equation of your line of fit.

x	1	2	3	4	5	6	7	8
y	0.25	1.1	0.45	1	0.65	2.1	1.45	2

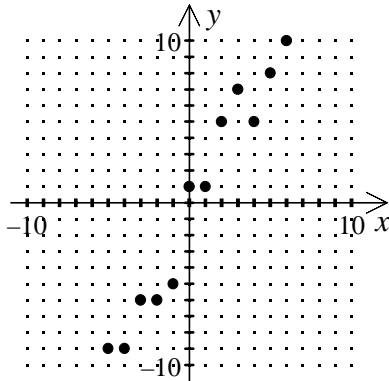


24. What type of relationship – positive, negative, or none – is shown by the scatter plot?



Algebra 1 Chapter 5 Practice Worksheet

25. What type of relationship is shown by the scatter plot?



- [A] strong negative correlation [B] weak negative correlation
 [C] weak positive correlation [D] strong positive correlation

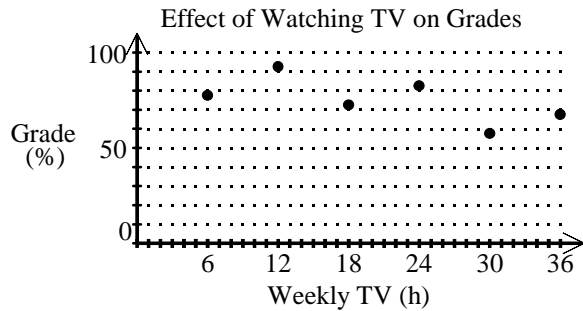
26. The table shows the amount of time several students spent watching TV and their test grades.

Weekly TV (h)	6	12	18	24	30	36
Grade (%)	77.5	92.5	72.5	82.5	57.5	67.5

Which scatter plot describes the data and the relationship, if any?

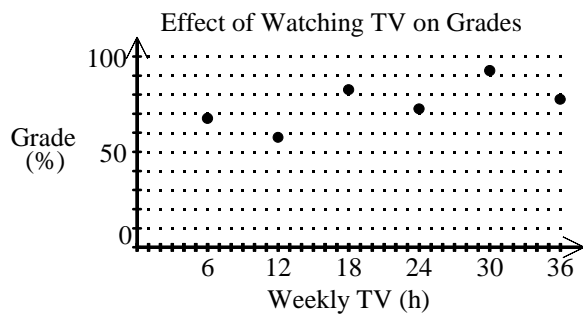
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[A]



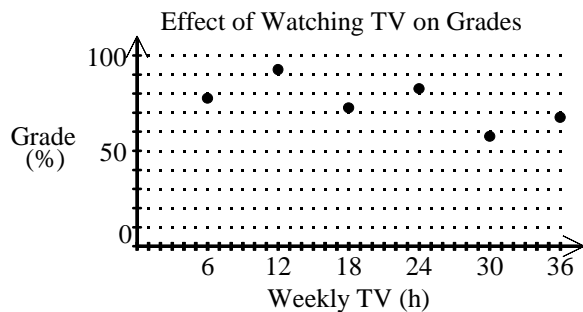
More hours spent watching TV may increase grades.

[B]



More hours spent watching TV may reduce grades.

[C]



More hours spent watching TV may reduce grades.

[D] none of these

(26.)

27. Write a point-slope equation of the line that passes through the points $(-4, -5)$ and $(2, -2)$. Use $(-4, -5)$ as the point (x_1, y_1) .

[A] $y + 5 = 2(x + 4)$

[B] $y + 5 = \frac{1}{2}(x + 4)$

[C] $y + 4 = 2(x + 5)$

[D] $y + 4 = \frac{1}{2}(x + 5)$

Algebra 1 Chapter 5 Practice Worksheet

28. Write an equation for the line, in point-slope form, that passes through the points $(-5, 7)$ and $(-4, -3)$. Use $(-5, 7)$ as the point (x_1, y_1) .
29. Use the point-slope form to write an equation of the line that passes through the point $(5, -7)$ with a slope of $\frac{3}{5}$.
30. Write $y = -\frac{7}{5}x - \frac{3}{5}$ in standard form.
31. Write the standard form of the equation of the line with slope 2 passing through the point $(-1, 4)$.
32. Rewrite the equation $y = \frac{2}{3}x - 4$ in *standard form* with integer coefficients.
33. Which of the following lines are parallel to each other?
 $2x - 6y = 3$; $6x + 2y = 3$; $-2x + 6y = 3$
34. The warehouse store has cashews that sell for \$3.75 a pound and pecans that sell for \$2.50 a pound. Write a linear equation that represents how much of each type of nut can be bought with \$10.
35. A grocery store knows that if it sells its canned hams for \$5 each, it can sell 750 per month, and if it sells the same hams for \$6, it will sell 700 per month. Assuming the relationship between price and sales is linear, write the equation you could use to predict sales for other prices.

Reference: [5.1.1.3]

[1] $y = \frac{1}{3}x - 4$

Reference: [5.1.1.8]

[2] $y = \frac{5}{2}x - \frac{3}{2}$

Reference: [5.1.1.9]

[3] $y = \frac{5}{7}x + 8$

Reference: [5.1.2.10]

[4] $m = -2.5$, y-intercept = 9, $y = -2.5x + 9$

Reference: [5.1.2.11]

[5] $y = 14x + 85$; \$953

Reference: [5.1.2.12]

[6] [D]

Reference: [5.2.1.13]

[7] [B]

Reference: [5.2.1.14]

[8] $x = 7$

Reference: [5.2.1.17]

[9] $x = -7$

Reference: [5.2.1.18]

[10] -3

Reference: [5.2.1.19]

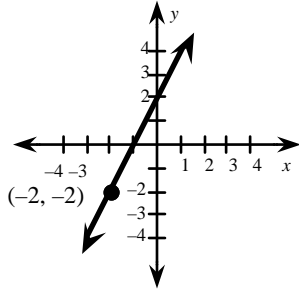
[11] -2

Reference: [5.2.1.20]

[12] $-\frac{5}{3}$

Reference: [5.2.1.22]

$y = 2x + 2$



[13] _____

Reference: [5.2.2.27]

[14] [D] _____

Reference: [5.2.2.28]

[15] $y = 748 - 25x$

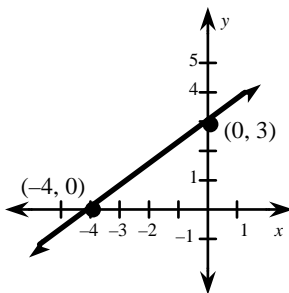
Reference: [5.3.1.34]

[16] [A] _____

Reference: [5.3.1.36]

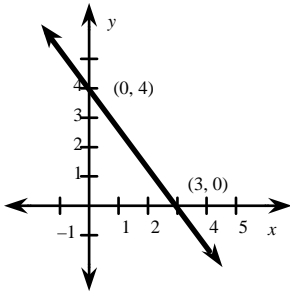
[17] $y = \frac{1}{2}x + 2$

Reference: [5.3.1.38]



[18] _____

Reference: [5.3.1.40]



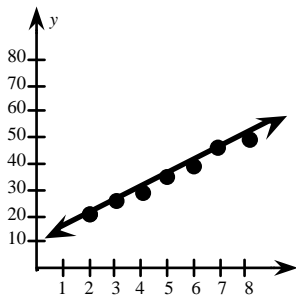
[19] _____

Reference: [5.3.2.44]

[20] $P = 3000t + 100,000$

Reference: [5.4.1.46]

$$y = 5x + 10$$

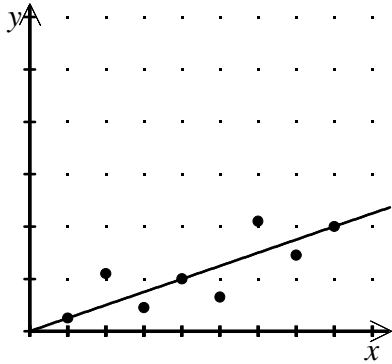


[21] _____

Reference: [5.4.1.49]

[22] $y = 0.2x + 4.37$

Reference: [5.4.1.50]



[23] $y = 0.25x$

Reference: [5.4.2.52]

[24] negative

Reference: [5.4.2.53]

[25] [D]

Reference: [5.4.2.54]

[26] [C]

Reference: [5.5.1.55]

[27] [B]

Reference: [5.5.1.56]

[28] $y - 7 = -10(x + 5)$

Reference: [5.5.1.60]

[29] $y + 7 = \frac{3}{5}(x - 5)$

Reference: [5.6.1.63]

[30] $7x + 5y = -3$ or $-7x - 5y = 3$

Reference: [5.6.1.65]

[31] $2x - y = -6$

Reference: [5.6.1.68]

[32] $2x - 3y = 12$

Reference: [5.6.1.69]

[33] $2x - 6y = 3, -2x + 6y = 3$

Reference: [5.6.2.70]

[34] $3.75x + 2.50y = 10$

Reference: [5.7.2.74]

[35] $50x + y = 1000$
