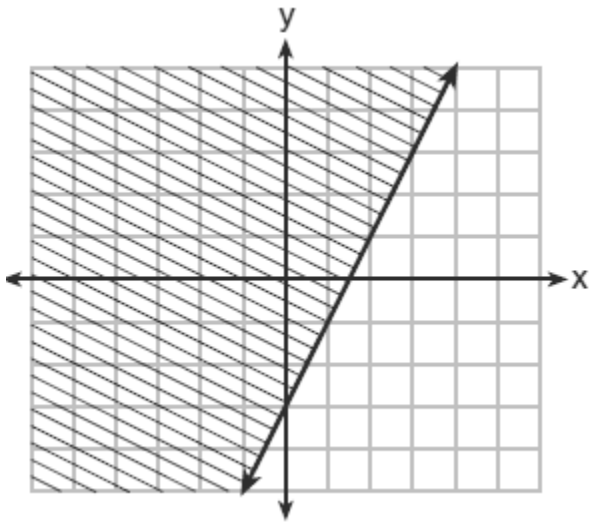


UNIT 2 PART B STUDY GUIDE

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| <p>Slope formula:</p> <p>Point-Slope form:</p> <p>Slope-Intercept form:</p> | <p>Parallel lines have the same _____</p> <p>Perpendicular lines have _____</p> |
| <p>Explain the graph of linear inequality with $<$ or \leq</p> | <p>Explain the graph of linear inequality with $>$ or \geq</p> |
| <p>Explain the steps to find the correlation coefficient “r”</p> | <p>Explain what the correlation coefficient means.</p> |
| <p>1) A parking garage charges \$25.00 for up to 3 hours. The cost of each additional hour of parking is \$4.50. If d represents the total number of additional hours and c represents the total charge for parking, write a linear equation that can be used to determine the amount owed. How much will the total charge be if you stay for 7 hours?</p> | <p>2) The length of a rectangle is 4 more than twice its width, w. Write an equation that represents the area, A, of the rectangle. Find the area.</p> |
| <p>3) Sarah goes to a bakery to buy doughnuts for work.</p> <ul style="list-style-type: none"> • Sarah has \$55.00 to spend. • The cost of a doughnut is \$0.65. <p>Write an equation that models the relationship between the amount of money Sarah has left, y, after buying x dozen doughnuts.</p> | <p>4) Solve and graph the solution to the inequality $5x + 2y > -4$</p> |
| <p>5) Solve and graph the solution to the linear inequality $y < \frac{1}{6}x - 3$</p> | <p>6) What is the equation that represents a line that is perpendicular to the line $y = 3x - 4$ and passes through the point $(-6, 6)$?</p> |

7) Write a linear inequality of the graph shown.

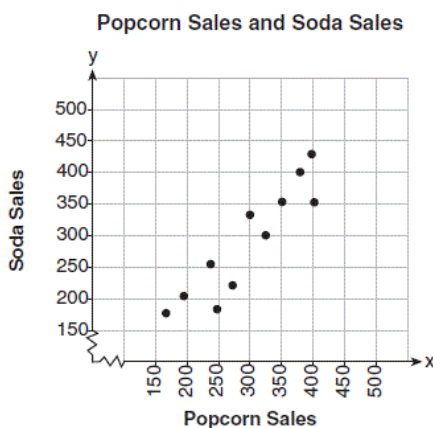


8) What is an equation of the line that passes through the point $(-2, 1)$ and is parallel to the line whose equation is $4x - 2y = 8$?

9) What is an equation of the line that passes through the point $(-1, 2)$ and is parallel to the graph of $4x + 3y = 6$?

10) The lines whose equations are $2x + 3y = 4$ and $y = mx + 6$ will be perpendicular when m is:

11) The scatterplot below compares the number of bags of popcorn and the number of sodas sold at each performance of the circus over one week. What conclusion can be drawn from the graph?



12) The table below shows 6 students' overall averages and their averages in their math class. What is the correlation coefficient? Explain what type of correlation. What does the correlation mean?

| | | | | | | |
|--------------------------------|----|----|----|----|----|----|
| Overall Student Average | 92 | 98 | 84 | 80 | 75 | 82 |
| Math Class Average | 91 | 95 | 85 | 85 | 75 | 78 |

13) The following table shows the number of goals scored and the number of wins for a local hockey league for the season. What is the correlation coefficient?

| | | | | | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Goals Scored | 318 | 222 | 235 | 257 | 214 | 216 | 219 | 208 | 225 | 222 |
| Wins | 54 | 48 | 45 | 47 | 27 | 32 | 38 | 32 | 40 | 38 |

14) Maddie borrowed \$1,250 from a friend to buy a new TV. Her friend doesn't charge any interest, and Maddie makes \$40 payments each month. What is the equation that models the money Maddie owes? How many months will it take Maddie to pay back her friend?

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