| Vocabulary Toolkit |  |  |
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|  | Term | Definition / Additional Information |
| $\begin{gathered} 5.2 \\ \mathrm{~T} \end{gathered}$ | boundary line | The boundary for a linear inequality. The points on it are part of the solution set if it is a solid line ( $\leq$ or $\geq$ ), or not part of the solution set if it is a dashed line ( $<$ or $>$ ). |
| $\begin{gathered} 5.2 \\ \mathrm{~T} \end{gathered}$ | constraint | Something that limits or restricts someone or something. |
| $\begin{gathered} 5.10 \\ \mathrm{~T} \end{gathered}$ | dependent system | A system that has an infinite set of solutions, since both equations actually describe the same line. |
| $\begin{gathered} 5.9 \\ \mathrm{~T} \end{gathered}$ | Elimination Method | The process of eliminating one of the variables in a system of equations using addition or subtraction in conjunction with multiplication or division to solve a system of equations. |
| $\begin{gathered} 5.5 \\ \mathrm{~T} \end{gathered}$ | feasible region | The solution set of all points in a system of inequalities that satisfy given constraints of situation in a context (there may be additional implied constraints that are not a part of the system of inequalities). |
| $\begin{gathered} 5.10 \\ \mathrm{~T} \end{gathered}$ | inconsistent system | A system that has no solutions, since the lines are parallel. |
| $\begin{gathered} 5.3 \\ S \end{gathered}$ | intercept | The $x$-intercept of a line is the point at which the line crosses the $x$ axis, where the y value equals 0 . $x$-intercept : $(x, 0)$ <br> The $y$-intercept of a line is the point at which the line crosses the $y$ axis, where the x value equals 0 . $y$-intercept: ( $0, y$ ) |
| $\begin{gathered} 5.3 \\ \mathrm{~T} \end{gathered}$ | linear equation | An algebraic equation in which each term is either a constant or the product of a constant and (the first power of) a single variable. |
| $\begin{gathered} 5.2 \\ \mathrm{~T} \end{gathered}$ | solution or solution set | Any and all value(s) of the variable(s) that satisfy an equation, inequality, system of equations, or system of inequalities. <br> With a system of equations or inequalities, the solution set is the set containing value(s) of the variable(s) that satisfy all equations and/or inequalities in the system. |
| $\begin{gathered} 5.7 \\ \mathrm{~T} \end{gathered}$ | system of equations | A set or collection of equations. |
| $\begin{gathered} 5.5 \\ \mathrm{~T} \end{gathered}$ | system of inequalities | A set or collection of inequalities. |

