## Unit 5: Linear Relations

| Section | Topic | Learning Goal | Homework |
| :---: | :---: | :---: | :---: |
|  | The equation of a line in slope yintercept form, $y=m x+b$ | I can: Determine the equation of a line when given a graph Summarize what they learned from previous unit on the roles of $m$ and $b$ in the slope, $y$-intercept form of an equation Determine equations of vertical and horizontal lines Graph equations of a line using $m \& b$ Determine if a point is on a line graphically and algebraically Solve problems involving Linear Equations | $\begin{aligned} & \text { p. } 304 \# 1-4,6,7- \\ & 10 \\ & + \text { worksheets } \end{aligned}$ |
| $\begin{aligned} & 6.2 \\ & 1 \text { day } \end{aligned}$ | The equation of a line in standard form, $A x+B y+C=0$ | I can: Rearrange equations of a line in the form $\boldsymbol{y}=\boldsymbol{m} \boldsymbol{x}+\boldsymbol{b}$ in terms of $x$ and $y$ Apply their knowledge and skills to solve real world problems by interpreting the meaning of the slope and $y$-intercept Use table of values to graph a line | $\begin{aligned} & \text { p. 312-314 } \\ & \# 1-11 \end{aligned}$ |
| 6.3 <br> 1.5 days | Graph a line using intercepts. | I can: Distinguish between slope-intercept form and Standard Form of an equation of a line Rearranging equations into proper standard form and identify the values of A, B, and C Convert equations in standard form and convert from standard form to slope $y$-intercept form Find the $x$-and $y$-intercepts when an equation is given. Interpret the meaning of the $x \& y$-intercepts in a real-life application Graph a line when given an equation by finding the $x$ - and $y$-intercepts | $\begin{aligned} & \text { p. 319-322 } \\ & \text { \#1-9, } 11 \\ & \text { + Why does the } \\ & \text { Poor Man Drink } \\ & \text { Coffee? } \end{aligned}$ |


| Section | Topic | Learning Goal | Homework |
| :---: | :---: | :---: | :---: |
| $\begin{gathered} 6.4 \\ 1 \text { day } \end{gathered}$ | Parallel and perpendicular lines. <br> "Investigating Slope" | I can: Distinguish between two lines that are parallel or perpendicular using their slopes Determine the equation of a line that is parallel or perpendicular to others | $\begin{aligned} & \text { p. } 327-329 \\ & \# 1-11,13 . \end{aligned}$ |
| $\begin{gathered} 6.5 \\ 1 \text { day } \end{gathered}$ | Find an equation for a line given the slope and a point. | I can: Determine an equation of a line given <br> (i) a point and slope <br> (ii) parallel or perpendicular to a line and a point Apply their knowledge and skills to a real-life application | $\begin{aligned} & \text { p. } 335-337 \\ & \# 1-6,8,11 . \end{aligned}$ |
| $\begin{aligned} & 6.6 \\ & 1 \text { day } \end{aligned}$ | Find an equation for a line given two points. | I can: Determine an equation of a line given <br> (iii) Two points Apply their knowledge and skills to a real-life application | $\begin{aligned} & \text { p. 342-343 } \\ & \text { \# 1-10. } \end{aligned}$ |
| $\begin{aligned} & 6.7 \\ & 1 \text { day } \end{aligned}$ | Linear Systems by graphing | I can: Practice solving a linear system by finding the point of intersection between two lines in-real world situations Interpret the Break Even point (point of intersection) | $\begin{aligned} & \text { p. 348-351 } \\ & \# 1-7,9,11,12- \\ & 14 . \end{aligned}$ |
|  | Unit Review | Extra Handouts (a.k.a course pack) for Review | $\begin{aligned} & \text { p. } 352,353 \\ & \# 1-18 . \end{aligned}$ |
|  | Test |  |  |

