Unit 6 - Analytic Geometry Part $2 \quad$ Name:
is unit. NOTE: You will need graph paper and a ruler for this unit.

| Day | Lesson |  | Assigned Work | Done $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | The Equation of a Line in Slope and y-Intercept Form | 6.1 | $\begin{aligned} & \text { page 304-306 } \\ & \# 1,2,3,4,6(\text { ace ), } 7 \text { (ab), } 9, \\ & 10,12 \end{aligned}$ |  |
| 2 | The Equation of a Line in Standard Form | 6.2 | page 312-315 \#1,2,4, 7,8,9(for 7 \& 8 graph using graphing software), 11 |  |
| 3 | Graph a Line Using Intercepts | 6.3 | $\begin{aligned} & \text { page 319-321 } \\ & \# 1,3 a c d e f, 4 a b c, 5 c d, 6,9,11 \end{aligned}$ |  |
| 4 | *QUIZ* <br> Parallel and Perpendicular Lines | 6.4 | $\begin{aligned} & \text { page 328-329 \#1(bd),2,3, } \\ & 4 \text { (acef), } 5 \text { (acef), } 6,7,8,10 \end{aligned}$ |  |
| 5 | Find the Equation of a Line Given the Slope and Point | 6.5 | $\begin{aligned} & \text { page 335-337 } \\ & \# 1 \text { (ace)2ace,3,5,6,8 } \end{aligned}$ |  |
| 6 | Find the Equation of a Line Given Two Points | 6.6 | page 342-343 \#1ac,2- <br> 4,5abdf, 8 |  |
| 7 | Linear Systems | 6.7 | page 348-351 \#1, 2, 7, 9, 10, 13, 12(use graphing software for \#12) |  |
| 8 | Review |  | page 352 \#1-18 page 354 \#1-13 |  |
| 9 | TEST |  |  |  |

## Learning Goals:

- determine the properties of the slope and $y$-intercept of a linear relation
- solve problems involving linear relations.

Success Criteria:

- Identify the equation of a line in any of the forms $y=m x+b, A x+B y+C=0, x=a, y=b$;
- express the equation of a line in the form $y=m x+b$, given the form $A x+B y+C=0$.
- Identify the geometric significance of $m$ and $b$ in the equation $y=m x+b$
- identify properties of the slopes of lines and line segments
- graph lines by hand, using a variety of techniques (e.g., graph $y=x-4$
using the $y$-intercept and slope; graph $2 x+3 y=6$ using the $x$ - and $y$-intercepts)
- determine the equation of a line from information about the line (e.g. slope and a point, two points etc.)
- describe the meaning of the slope and $y$-intercept for a linear relation arising from a realistic situation
- determine graphically the point of intersection of two linear relations, and interpret the intersection point in the context of an application

