What are we learning in Unit 3 – Linear Systems & Linear Programming?

Self-Ratings:

1: I've never seen this topic and wouldn't even know how to begin.

2: I've heard or seen this before, but don't know how to start or complete the problem.

3: I know the topic and can work through the problem but am unsure whether I am correct.

4: I feel confident that I could present my work and solution to the class.

5: I feel that I could correctly teach this topic to another student if asked.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Target** | **Examples** | **Pre-Unit** | **Mid-Unit** | **Post-Unit** |
| **3A.** Translate a verbal model into an algebraic model. | You are selling tickets for a high school basketball game. Student tickets cost $3 and general admission tickets cost $5. You sell 350 tickets and collect $1450?  Select the system of equations that represents the problem above? |  |  |  |
| **3B.** Solve a system of equations graphically and algebraically. | Solve the system of equations. |  |  |  |
| **3C.** Understand the relationship between a system of equations and its number of solutions. | How many solutions are there to the following system of equations?  -4x - 8y = 16  3x + 6y = -12 |  |  |  |
| **3D.** Graph a system of inequalities to determine the feasible region and maximize or minimize an objective function. | What is the minimum value of the objective function subject to the following constraints? |  |  |  |
| **3E.** Problem solve using Linear Programming. | Nancy’s bakery can produce either cakes or pies. In a given day, the bakery can turn out at most 200 items, of which, 100 cakes and 50 pies are required by regular customers. The profit on a cake is $5 and on a pie is $4. What number of cakes and pies would maximize Nancy’s profit? |  |  |  |