### Key Learning:

Solving system of equations and inequalities by graphing and algebraic manipulation then apply that knowledge to solve real world problems.

#### Unit Essential Question(s):

How do graphing or using algebraic manipulation of a system of equations or inequalities provides solutions to real world applications?

<table>
<thead>
<tr>
<th>Concept:</th>
<th>Graphing system of linear equations and inequalities</th>
<th>Concept: Algebraic methods of solving linear equations</th>
<th>Concept: Real world application of linear system and linear inequalities</th>
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</thead>
<tbody>
<tr>
<td>Lesson Essential Question(s):</td>
<td>How do you graph a system of equations or inequalities and what types of solutions are possible by examining the graphs? (A)</td>
<td>How do you determine the solution to a system of equations by algebraic substitution when it is not possible to graph the situation? (A)</td>
<td>How do you determine the best method of solving a system of linear equations or a system of inequalities? (A)</td>
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<tr>
<td>How do you graph a system of inequalities and approximate the solution of linear equations by identifying the acceptable regions and boundaries? (A)</td>
<td>How do you determine the solution to a system of equations by algebraic eliminations (adding and subtracting) when it is not possible to graph the situation? (A)</td>
<td>How do you determine the solution to a system of equations by algebraic multiplication when it is not possible to graph the situation? (A)</td>
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| Vocabulary: | systems of equation, consistant, independent, dependent, inconsistent, system of inequalities | substitution, elimination, | systems of equalities, system of inequalities |

Additional Information:
- Sections 6.1, 6.2, 6.3, 6.4, 6.5, 6.8  
- omit 6.6, 6.7

Attached Document(s):
**Concept: Graphing system of linear equations and inequalities**
- systems of equation, consistant, independent, dependent, inconsistent, system of inequalities -

**Concept: Algebraic methods of solving linear equations**
- substitution, elimination, -

**Concept: Real world application of linear system and linear inequalities**
- systems of equalities, system of inequalities -