

### Review Radical Operations

- Simplify:  $3\sqrt{5} + 5\sqrt{5}$
- Simplify:  $5\sqrt{3} - 2\sqrt{48}$
- Simplify:  $\sqrt{6}(3 - \sqrt{3})$
- Simplify:  $(2\sqrt{8} - 3\sqrt{2})(3\sqrt{8} + \sqrt{2})$
- Write in most simplified form:  $\frac{3}{1-\sqrt{2}}$

### *To Solve Radical Equations:*

- Isolate the radical on one side of the equation
- Raise each side to the power suggested by the index
- Solve
  - CHECK for *extraneous* solutions!!!!

### *To Solve Radical Equation Involving 2 Radical Expressions or Exponents:*

- Isolate one of the radical terms (Pick the more difficult term)
- Eliminate that term
- Simplify
- Eliminate 2<sup>nd</sup> radical term
  - CHECK for *extraneous* solutions!!!

### *Examples:*

- What is the solution of  $\sqrt{x+4} + 6 = 7$ ?
  
  
  
  
  
  
  
  
  
  
- What is the solution of  $\sqrt{5x+14} = x$ ?