Objectives For Portfolio  The student will
   See an overview of what was learned this semester.
   Have examples to use with children.
   Reflect on the material covered in the course.
   Have a model of a good assessment tool.

Portfolio Requirements
   o  Utah State Core draft on Geometry and Data Analysis  (10%)
   o  Statistics  (15%)
      Stem-leaf
      Pie chart
      Histogram
      Data with mean, median, mode and standard deviation
      Box/whisker plot
      Scatter plot
      Examples of graphs and statistics from current events.
   o  Probability  (15%)
      Experimental probability example
      Sample probability problems using:
         Tree Diagram
         Venn Diagram
         Pascal’s Triangle
      Conditional Probability
      Odds
      Sample permutation problems
      Sample combination problems
   o  Shapes  (15%)
      Examples of various shapes in the real world
      Definitions and properties of 2d shapes
      Definitions and properties of 3d shapes
      Symmetry
      Venn Diagram of quadrilaterals
      Tessellation by regular polygons
      Angle relationships (corresponding, alternating interior, etc.)
   o  Measurement  (15%)
      Measurement lesson or activity (geared toward elementary students)
      Measurement conversions
Perimeter and Area formulas and examples
Volume and Surface Area formulas and examples
Pythagoras’ Theorem proof and examples
Page about pi (scatter plot, slope of best fit line, definition of pi, etc.)
Scaling example or activity

- Other Geometry Topics (15%)
  - Congruence Theorems and examples
  - Similarity Theorems and examples
  - Constructions—perform all the following constructions with a
    compass and straightedge, and then prove one of them.
    - Bisect an angle
    - Construct perpendicular bisector to segment
    - Construct a perpendicular to a given line through a point
      NOT on the line
    - Construct a perpendicular to a given line through a point
      ON the line
    - Construct your favorite regular polygon
  - Algebra/Geometry tie-in formulas and examples

- Reflections (10%)
  - From all problem sets
  - Final reflection (typed, about a page) to address these questions
    - How did your view of the world change due to this
      exploration into geometry? In other words, are you looking
      at things differently, noticing things you didn't used to
      notice, etc.?
    - What is the most meaningful tidbit you learned in this
      course?
    - From all the topics we covered this semester, what are you
      now excited to teach children?

- Other items of your choice (5%)