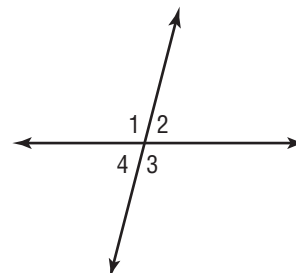# Extended-Response Test

Demonstrate your knowledge by giving a clear, concise solution to each problem. Be sure to include all relevant drawings and justify your answers. You may show your solutions in more than one way or investigate beyond the requirements of the problem. If necessary, record your answer on another piece of paper.

1. **a.** Explain what it means for two angles to be congruent.
   b. In the figure, which angles are congruent? Find the measure of all the angles if $m\angle 2 = 76°$.

2. **a.** Explain how to classify triangles by the measure of their angles. Draw an example of each classification.
   b. Draw a right angle, obtuse angle, straight angle, and acute angle. Explain how the figures are different.
   c. Draw an example of supplementary angles. Explain how supplementary angles are different from complementary angles.

3. **a.** Explain how to classify the figure at the right.
   b. Name the base(s). Explain how you determined your response.