## Sample Lesson #3

- 1. Find the measures of angles *A*, *B*, and *C*.
- 2. (6, 15) and (15, 21) are on the same line. What is the slope of the line? What is the *y*-intercept? Write the equation for the line.
- 3. Determine whether the shapes are similar. If not, write *not similar*. If they are, describe one possible set of transformations that may have occurred.
- 4. The Salome family and the Kotb family both bought tickets to the circus. The Salome family bought 3 children and 1 adult ticket that totaled \$38. The Kotb family bought 3 children and 2 adult tickets for a total of \$52. Find the cost of a child's ticket and an adult's ticket. Use the variables *x* for the children's ticket and *y* for the adult's ticket.
- 5. Use the Pythagorean Theorem to find the distance between the two points. Round to the nearest hundredth.
- 6. Circle the area on the graph that shows the most rapid increase in temperature.
- 7. Deshawn polled a random sample of middle schoolers to see which grade had the highest relative frequency of bus riders. Fill in the relative frequencies. Which grade had the highest? Which grade's relative frequency was closest to that of all three grades?

|                                     | Sixth | Seventh | Eighth | Total |
|-------------------------------------|-------|---------|--------|-------|
| Bus Riders                          | 37    | 27      | 23     | 87    |
| Non-Bus Riders                      | 13    | 23      | 27     | 63    |
| Total                               | 50    | 50      | 50     | 150   |
| Relative Frequency<br>of Bus Riders | A)    | B)      | C)     | D)    |

- 8. Kelly can get to her house by car or by boat. What is the difference in distance between the two routes? Round your answer to the nearest tenth.
- 9. Find the volume of a cylinder with a radius of 5 inches and a height of 13 inches. Give your answer in terms of  $\pi$ .
- 10. Compare the graph with the algebraic equation. Which has the greater slope?
- 11. Fig. A' was formed by a dilation of Fig. A. Determine the scale factor of the dilation by comparing side lengths.
- 12. Solve. 10.2 64.5f = -15.6

