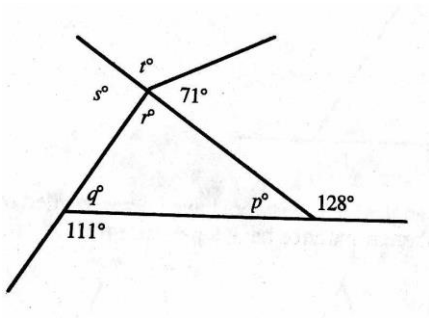# FOM – Flashback #4

1. An 8" x 10" photograph was scaled by a factor or 5:2. Is this an enlargement or a reduction? What are the new dimensions? By what factor has the perimeter changed by? By what factor has the area changed by?

2. Determine the angles marked with letters and provide a reason for each.

3. Two aircraft, A and B, leave an airport at the same time. A flies on a course of 90o at 700 km/hr and B flied on a course of 290; at 600 km/hr. Draw a diagram to show the positions of the aircraft after 12 minutes. How far has each airplane travelled? How far apart are they?
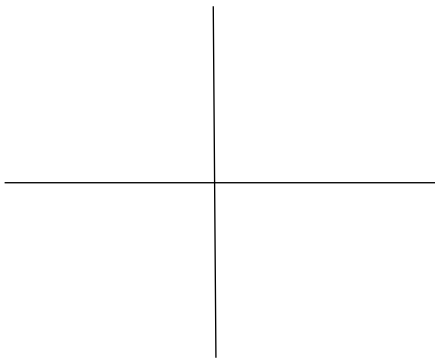
4. Given a normal curve, shade in the area between the z-score of 2 and -1.5. Give the area as a decimal and as a percent. Label the diagram.
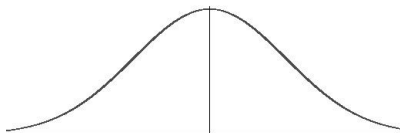
5. Write the equation of a quadratic function in standard form with the following characteristics:
    a) Vertex at (6,4)
    b) Vertex of (3, -5) and opening down
    c) Vertex at the origin
    d) Opening up with no x intercept

6. Determine the roots of the equation $2x^2 - 8x + 5 = 0$.

7. Graph the inequality $2x - y > 6$ and $x < 2$
   List three possible solutions for this system and prove algebraically.