

**Geometry 1BH May/June Brain Teasers**  
**Due May 29**

Two circles are externally tangent at P. A secant line is drawn through P and intersects the circles at A and B, respectively. Prove: The tangents to the circles at A and B are parallel.

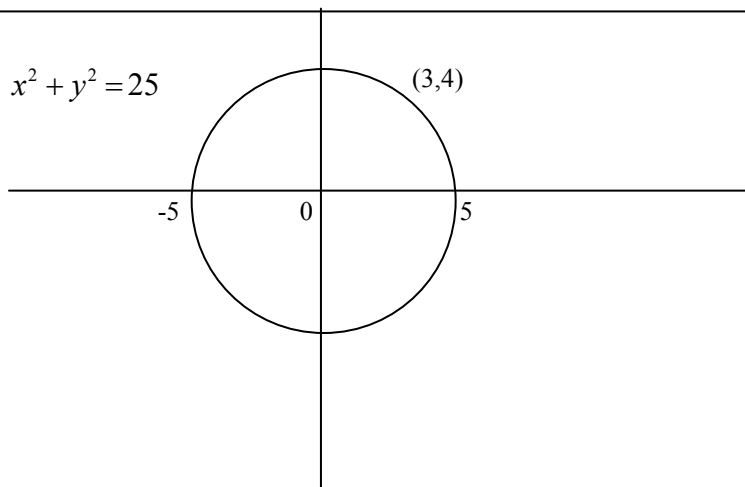
3 points

A secant and a tangent to a circle intersect to form an angle of  $38^\circ$ . If the measures of the arcs intercepted by the secant and the tangent are in a ratio of 2:1, find the measure of the third arc.

3 points

Rearrange the letters of "new door" to make one word.

2 points



1) Find an equation of the line that is tangent to the circle at (3,4).

3 points

2) What is the slope of the radius to the point with coordinates (3,4)? What is the slope of the tangent to that point?

2 points