**Transformations: Rotation Notes**

**Rotations: to turn a figure about the origin on a coordinate plane**

**Triangle *RST* represents the placement of Tyra’s tricycle in the driveway and has vertices *R*(−7, 8), *S*(−7, 2), and *T*(−2, 2). Graph the figure and its rotated image after a clockwise rotation of 180º about the origin. Then give the coordinates of the vertices for triangle *R´S´T´*.**

Graph Δ*RST* on a coordinate plane. Next sketch segment connecting point *T* to the origin. Sketch another segment, , so that the angle between point *T*, *O*, and *T*′ measures 180° clockwise and the segment is congruent to .



Repeat for points *R* and *S*. Then connect the vertices to form Δ*R*′*S*′*T*′.



The coordinates of the vertices for triangle *R*′*S*′*T*′ are *R*′(7, –8), *S*′(7, –2), and *T*′(2, –2).

** Which capital letters in VIRGINIA produce the same letter after being rotated 180º?**

Rotate the word VIRGINIA 180° or $\frac{1}{2}$ of a full rotation.

 

 The letters I and N appear the same as the original.