THE ROUTE TREE

Identifying Angle Measures in Routes

COMMON CORE STATE STANDARDS: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. (CCSS: 4.G.1)
Demaryius Thomas is one of the most productive wide receivers in the NFL. Each week, he dazzles fans with his dynamic moves and smooth strides that often land him in the endzone. Prior to him catching the football, however, Thomas has to get open. He gets open by running routes.

As a wide receiver, it is important to run precise routes to get separation from the defender, and to time up with your Quarterback. Precise routes essentially mean precise angles. Take a look at the “Route Tree” below.

Each route consist of a name and a number. As the route gets longer, their number identification gets larger. Again, take a few minutes to analyze the route tree.

Huddle Question: Have you run any of these routes before? If so, which ones?
Identifying Route Angles

In order to run precise routes to get open, wide receivers need to have knowledge of geometric angle measures. Take a look at the 4 major angles below.

- **Right angle** = 90°
- **Acute angle** = 0° < v < 90°
- **Obtuse angle** = 90° < v < 180°
- **Straight angle** = 180°

All 4 of the angle classifications above are represented in the wide receiver route tree below.

Directions: Match the route with the appropriate angle by drawing a line between them.

<table>
<thead>
<tr>
<th>Route</th>
<th>Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5) Out</td>
<td>Obtuse</td>
</tr>
<tr>
<td>(2) Slant</td>
<td>Right</td>
</tr>
<tr>
<td>(4) Curl</td>
<td>Obtuse</td>
</tr>
<tr>
<td>(9) Fade</td>
<td>Acute</td>
</tr>
</tbody>
</table>

Name the angles for the rest of the route tree below.

1. Flat is a ___________________ angle.
2. Dig is a ___________________ angle.
3. Comeback is an ___________________ angle.
4. Post is an ___________________ angle.
5. Corner is an ___________________ angle.