# Angles, Perimeter and Area Reference Sheet

## Types of Angles

<table>
<thead>
<tr>
<th>Types of Angles</th>
<th>Straight Angle</th>
<th>Right Angle</th>
<th>Acute Angle</th>
<th>Obtuse Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>= 180°</strong></td>
<td></td>
<td><strong>= 90°</strong></td>
<td>Greater than 0° Less than 90°</td>
<td>Greater than 90° Less than 180°</td>
</tr>
</tbody>
</table>

## Angle Relationships

<table>
<thead>
<tr>
<th>Adjacent Angles</th>
<th>Complementary Angles</th>
<th>Supplementary Angles</th>
<th>Vertical Angles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two angles that share a common side and vertex (\angle a \text{ and } \angle b) are adjacent (\angle a \text{ and } \angle c) are NOT adjacent</td>
<td>Two adjacent angles. The sum of their measurements equal 90°</td>
<td>Two adjacent angles. The sum of their measurements equal 180°</td>
<td>When two lines cross, the angles opposite of each other are vertical angles, they share a common vertex and the same measurement. (\angle a \text{ and } \angle 86°) are vertical angles (\angle b \text{ and } \angle 94°) are vertical angles</td>
</tr>
</tbody>
</table>
**Perimeter and Area**

*Perimeter is the distance around a 2-dimensional closed geometric shape.*  
*Area is the amount of surface it covers.*

### Square

- **Equations:**  
  - $s = \text{side}$  
  - Perimeter = $4s$  
  - Area = $s^2$

### Rectangle

- **Equations:**  
  - Perimeter = $2l + 2w$  
  - Area = $lw$

### Parallelogram

- **Equations:**  
  - Perimeter = $2w + 2b$  
  - Area = $bh$

### Triangle

- **Equations:**  
  - Perimeter = *add all sides*  
  - Area = $\frac{1}{2}bh$

### Trapezoid

- **Equations:**  
  - Perimeter = *add all sides*  
  - Area = $\frac{1}{2}h(b_1 + b_2)$