FST Name:

Notes 3.4 Date: Block:

***3.4 Radian Measure***

**Watch this video titled** [**“What are Radians?”**](https://www.youtube.com/watch?v=cgPYLJ-s5II)

* Angles can also be measured in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* One radian is the measure of an angle in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 whose terminal side intercepts an \_\_\_\_\_\_\_\_\_ of length \_\_\_\_\_\_.

* Since the circumference of a circle is \_\_\_\_\_\_\_\_\_, there are \_\_\_\_\_\_\_\_\_ radians in a full circle of radius 1.

|  |  |
| --- | --- |
| $$360°= \\_\\_\\_\\_\\_\\_\\_\\_\\_ radians$$ | $$180°= \\_\\_\\_\\_\\_\\_\\_\\_\\_radians$$ |

**Converting between Degrees and Radians**

|  |  |
| --- | --- |
| **Degrees to Radians** | **Radians to Degrees** |

Sketch the angle in standard position. Then convert the following degrees into radians.

a) $300°$ b) $145°$ c) $-970°$

Sketch the angles in standard position. Then convert the following radians into degrees.

a) $\frac{π}{6}$ b) $3π$ c) $-\frac{5π}{4}$

Sketch each given angle in standard position. Then find 3 angles that are coterminal (one must be negative) and the reference angle.

a) $\frac{11π}{6}$ b) $\frac{4π}{9}$

c) $-\frac{3π}{4}$ e) $\frac{2π}{3}$