## Question 24

## Ana Bhattacharjee

August 15, 2019

Use complete sentences to explain the steps required in converting  $180^{\circ}$  to its equivalent radian measure. Include your calculations in your final answer. To convert the given degree measure to its equivalent in radians, all we need to do is to use the ratio of radians to degrees. Since we are starting with an angle measure in degrees, the ratio we would use is  $\frac{2\pi}{360^{\circ}}$ . We multiply this ratio by  $180^{\circ}$  to get our answer.

$$180^{\circ} * \frac{2\pi}{360^{\circ}}$$

$$\frac{180^{\circ}}{360^{\circ}} * 2\pi$$

$$\frac{1}{2} * 2\pi$$

$$\frac{2\pi}{2} = \pi$$
(1)
(2)

$$\frac{180^{\circ}}{360^{\circ}} * 2\pi$$
 (2)

$$\frac{1}{2} * 2\pi \tag{3}$$

$$\frac{2\pi}{2} = \pi \tag{4}$$