

4. The angle described by a full circle is $360^\circ = 2\pi$ rad, which is the basis of our conversion factor. Thus,

$$(20.0^\circ) \frac{2\pi \text{ rad}}{360^\circ} = 0.349 \text{ rad}$$

and (similarly) $50.0^\circ = 0.873$ rad and $100^\circ = 1.75$ rad. Also,

$$(0.330 \text{ rad}) \frac{360^\circ}{2\pi \text{ rad}} = 18.9^\circ$$

and (similarly) $2.10 \text{ rad} = 120^\circ$ and $7.70 \text{ rad} = 441^\circ$.