

1. We know that $180^\circ = \pi$ radians so we can set up a ratio of the form used in Chapter 1.

$$x / (\pi \text{ radians}) = 90^\circ / 180^\circ$$

We multiply both sides of the equation by π radians to get x alone on the left hand side of the equation

$$x = (90^\circ / 180^\circ) (\pi \text{ radians})$$

$$x = (\pi / 2 \text{ radians}) = 1.571 \text{ radians}$$

Because 90° angles occur rather frequently it might be helpful to remember that $90^\circ = (\pi / 2)$ radians.