

Convert  $\frac{3\pi}{4}$  radians to degrees.

- 1) Begin with a basic fact:  $\pi \text{ rad} = 180^\circ$
- 2) Divide both sides by 4:  $\frac{\pi}{4} \text{ rad} = \frac{180^\circ}{4}$
- $\frac{\pi}{4} \text{ rad} = 45^\circ$
- 3) Now multiply both sides by 3:  $\frac{3\pi}{4} \text{ rad} = 135^\circ$

Or

Begin with  $\frac{3\pi}{4}$  radians and multiply by  $\frac{180^\circ}{2\pi \text{ radians}}$

- 1) Setup the multiplication, excluding the units:  $\frac{3\pi}{4} \times \frac{180}{2\pi}$
- 2) Cancel off the  $\pi$ 's in the top and bottom:  $\frac{3}{4} \times \frac{180}{2}$
- 3) 180 divided by 2 is 90:  $\frac{3}{4} \times 90$
- 4) Three fourths of 90 is 135.  $135^\circ$