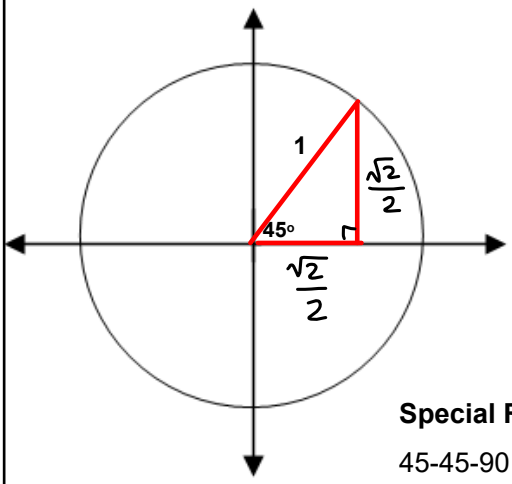
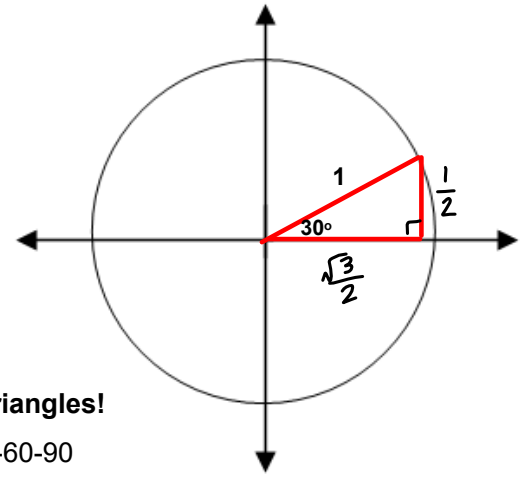
Unit 6 - Day 6 - The Unit Circle and Exact Values:

The Unit Circle

Main feature: Radius (hypotenuse) equals 1 unit





Special Right Triangles!

45-45-90 and 30-60-90

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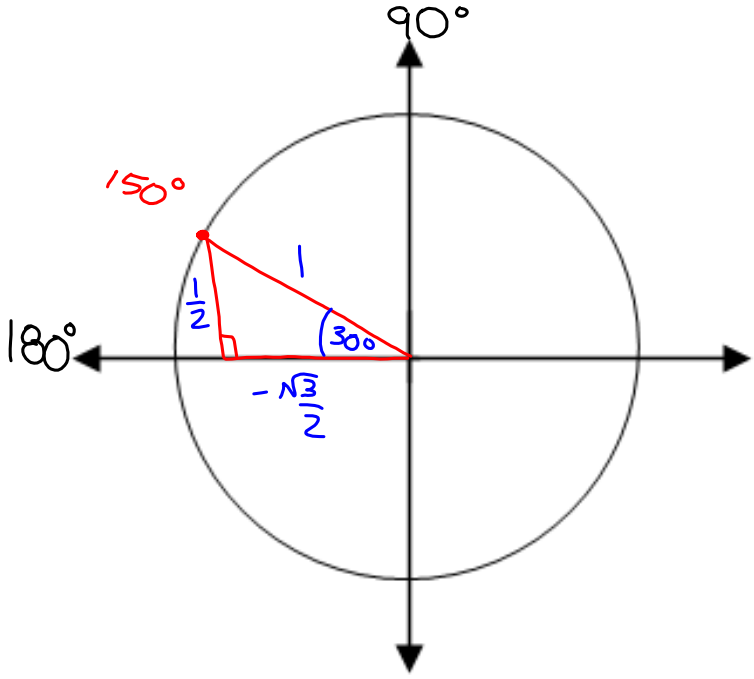
Find the exact value of each trigonometric function:

1. cos 150°

$= \frac{adj}{hyp}$

$= \frac{-\frac{\sqrt{3}}{2}}{1}$

$= \frac{-\sqrt{3}}{2}$



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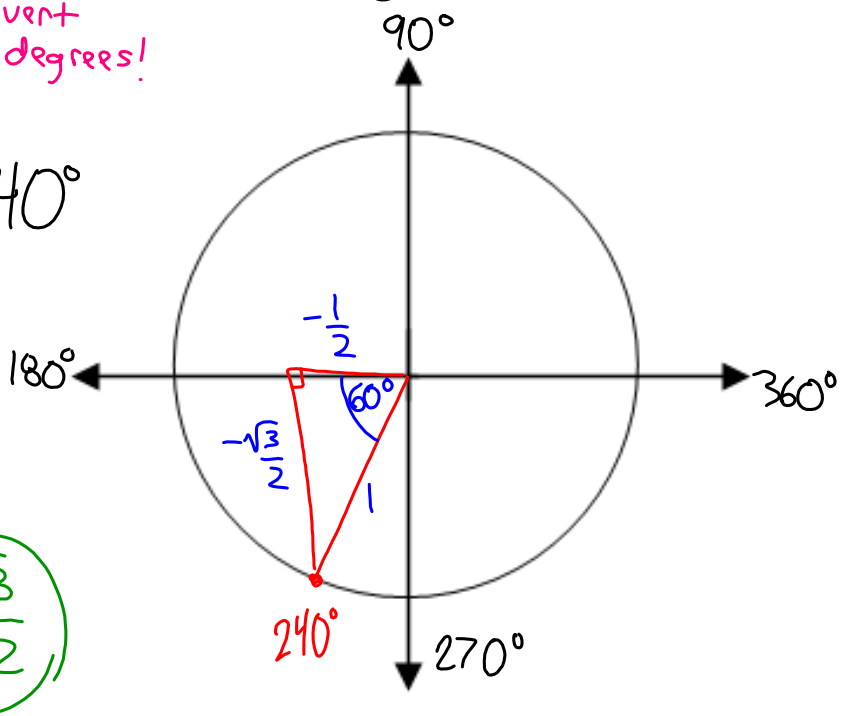
Find the exact value of each trigonometric function:

2. $\sin \frac{4\pi}{3}$ convert to degrees!

$\frac{4\pi}{3} \cdot \frac{180}{\pi} \rightarrow 240°$

$= \frac{opp}{hyp}$

$= \frac{-\sqrt{3}}{\frac{2}{1}} = \frac{-\sqrt{3}}{2}$



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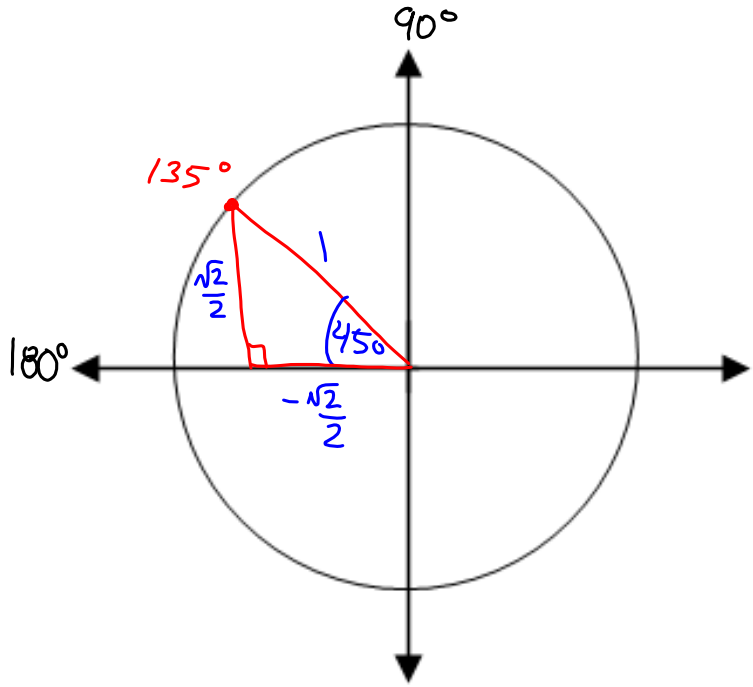
Find the exact value of each trigonometric function:

4. $\tan 135°$

$= \frac{opp}{adj}$

$= \frac{\frac{\sqrt{2}}{2}}{\frac{-\sqrt{2}}{2}} = -1$



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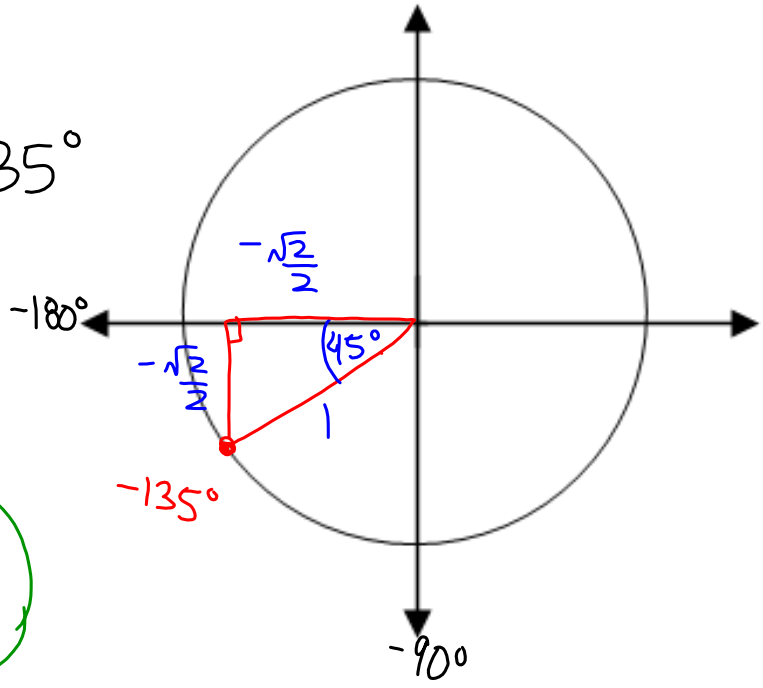
Find the exact value of each trigonometric function:

6. $\cos\left(-\frac{3\pi}{4}\right)$

$\frac{-3\pi}{4} \cdot \frac{180}{\pi} \rightarrow -135°$

$= \frac{adj}{hyp} =$

$= \frac{\frac{-\sqrt{2}}{2}}{1} = \frac{-\sqrt{2}}{2}$



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