A∞Ω
MATH@TD

MCR3U

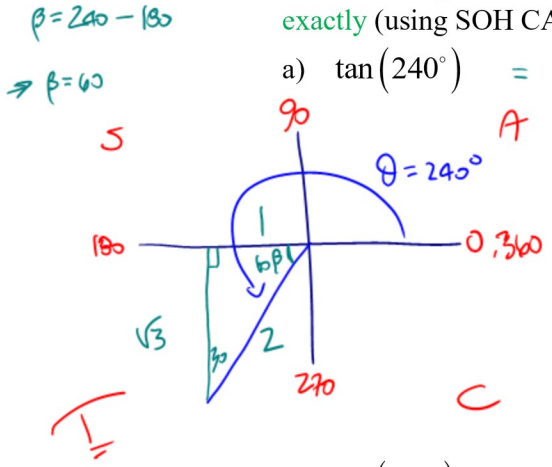
Name_____

Unit 5 *– Trigonometric Ratios*

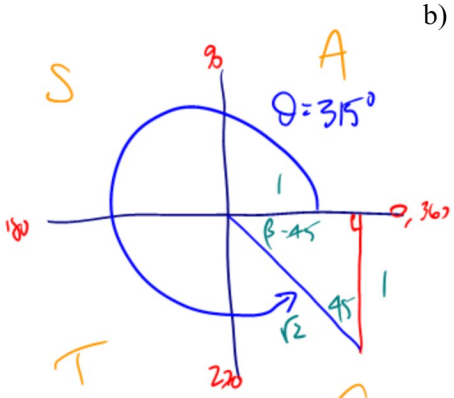
Speed Quiz (Practice 1): Angles of Rotation and Trig Ratios **(No Calculators!!)**

1. Draw the **Angle of Rotation**. Determine the **Related Acute Angle**. Determine the trig ratios exactly (using SOH CAH TOA and CAST) *(1 point each)*

a) $\tan(240^\circ) = +\sqrt{3}$



b) $\sin(315^\circ)$

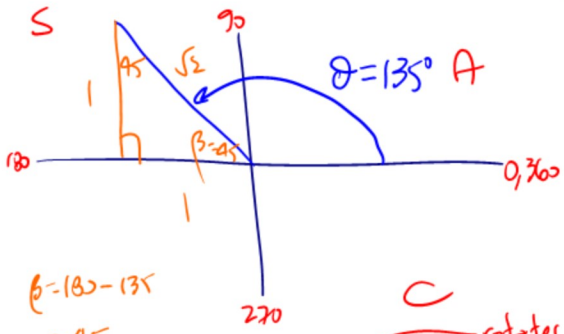


$= -\frac{1}{\sqrt{2}}$

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

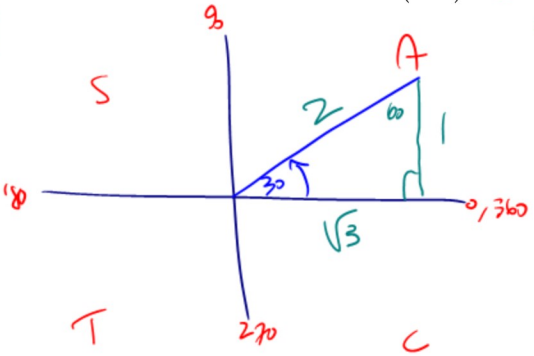
$= -\frac{\sqrt{2}}{2}$

c) $\cos(135^\circ) = -\frac{1}{\sqrt{2}}$

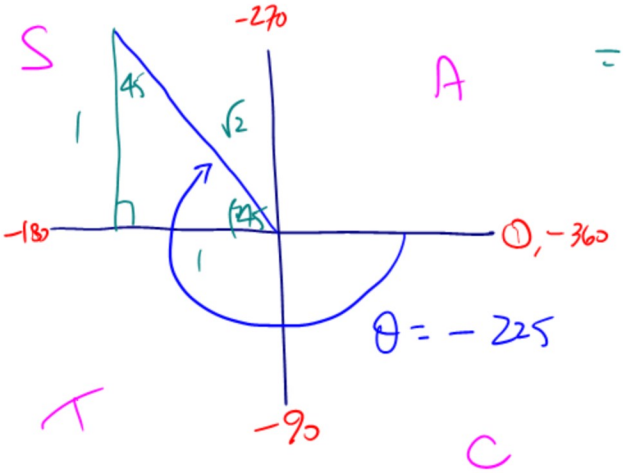


$= -\frac{\sqrt{2}}{2}$

d) $\sin(30^\circ) = +\frac{1}{2}$



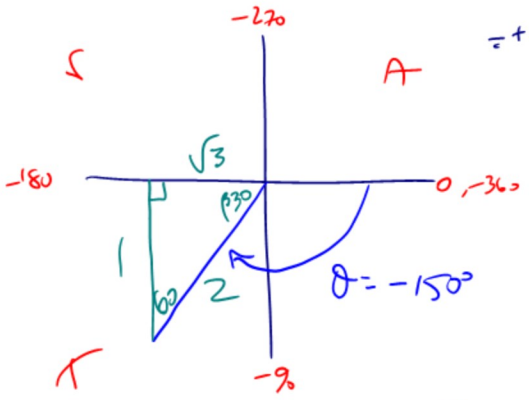
e) $\cos(-225^\circ)$ rotates clockwise (opposite to + positive angle)



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

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

f) $\tan(-150^\circ) = +\frac{1}{\sqrt{3}}$



$= +\frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$

$= +\frac{\sqrt{3}}{3}$