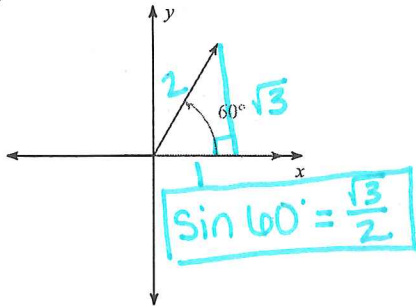


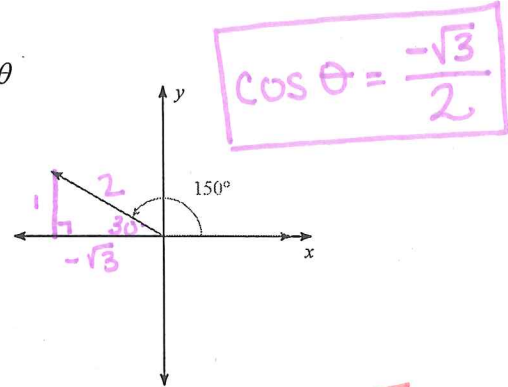
Exact Values Day 1 Hwk

Find the exact value of each trigonometric function.

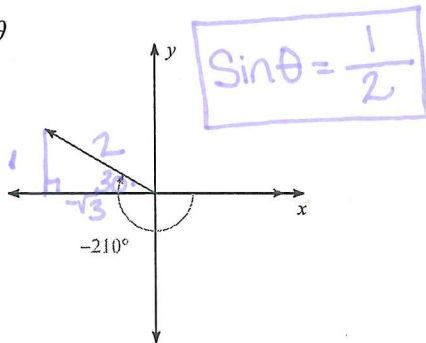
1) $\sin \theta$



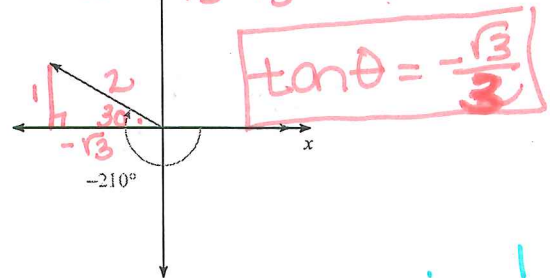
2) $\cos \theta$



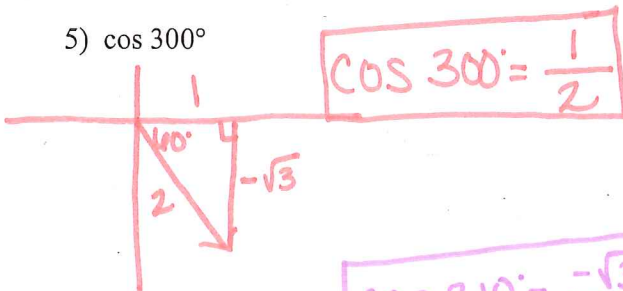
3) $\sin \theta$



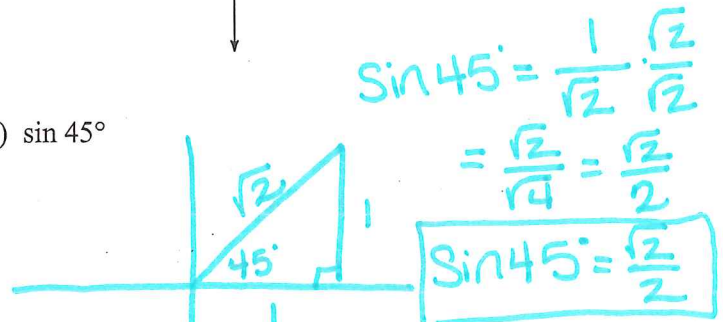
4) $\tan \theta = \frac{o}{a} = \frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$



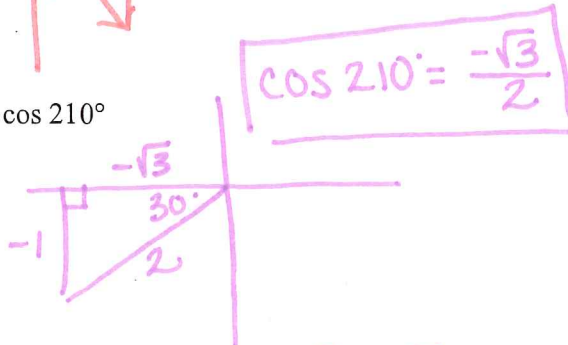
5) $\cos 300^\circ$



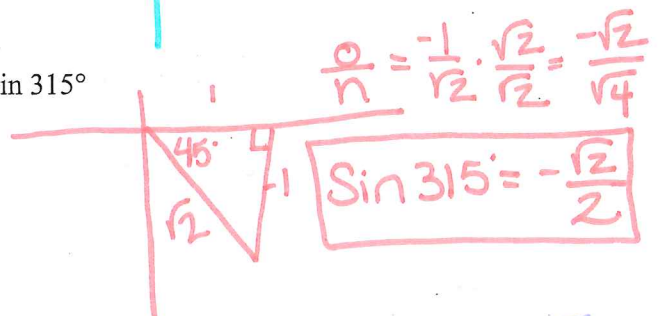
6) $\sin 45^\circ$



7) $\cos 210^\circ$

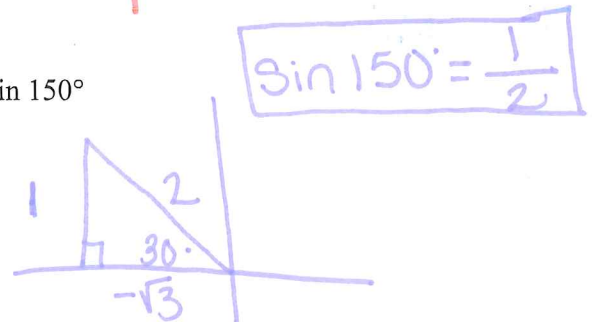
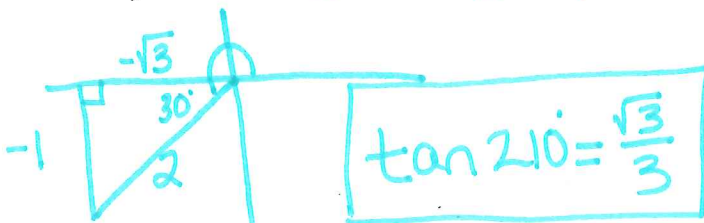


8) $\sin 315^\circ$

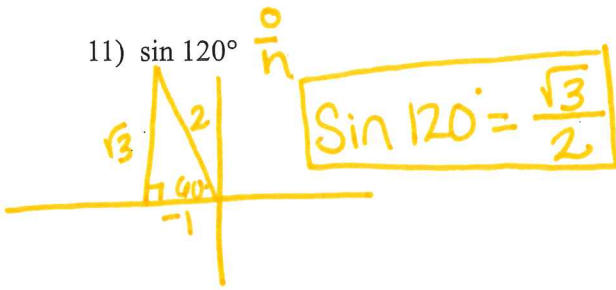


9) $\tan 210^\circ = \frac{o}{a} = \frac{-1}{-\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$

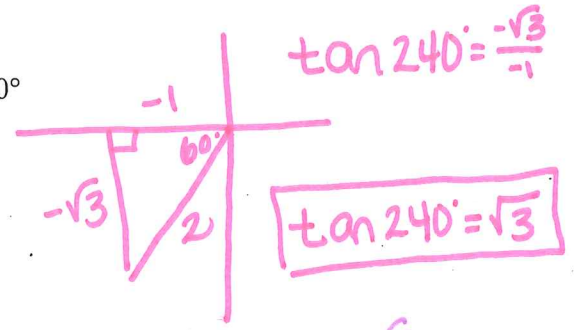
10) $\sin 150^\circ$



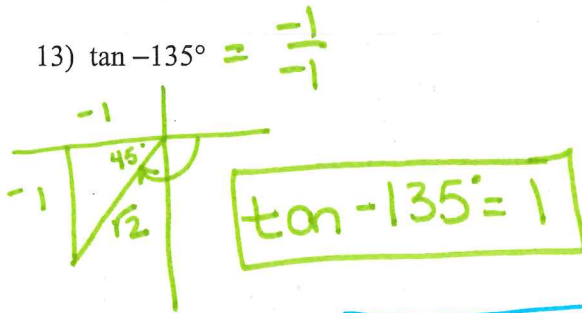
11) $\sin 120^\circ$



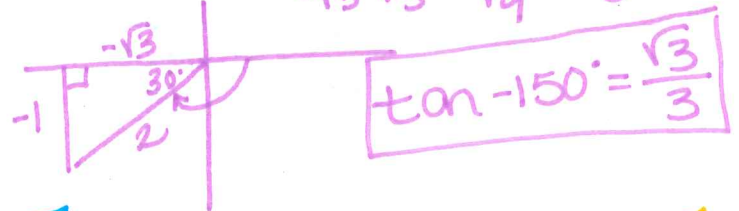
12) $\tan 240^\circ$



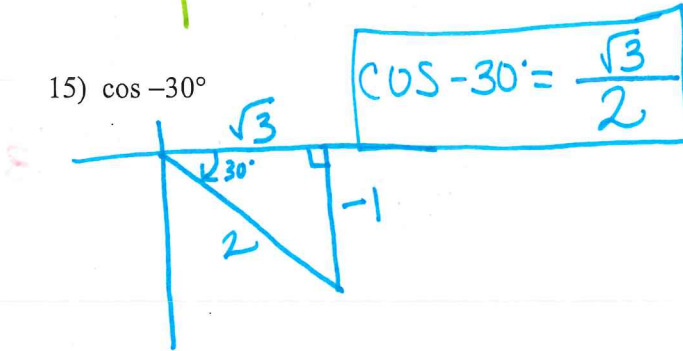
13) $\tan -135^\circ = -1$



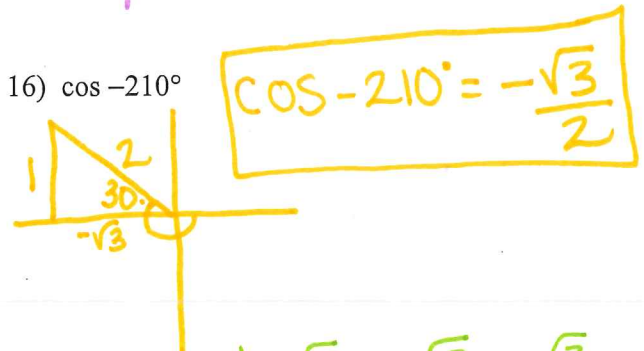
14) $\tan -150^\circ = \frac{-1}{-\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$



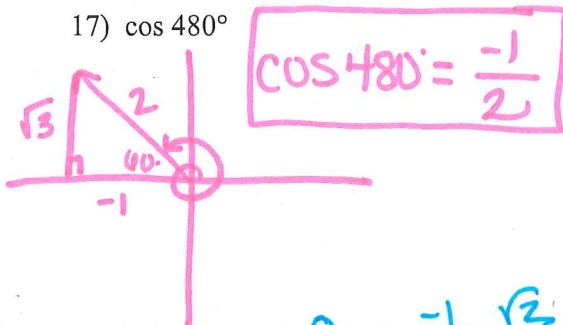
15) $\cos -30^\circ$



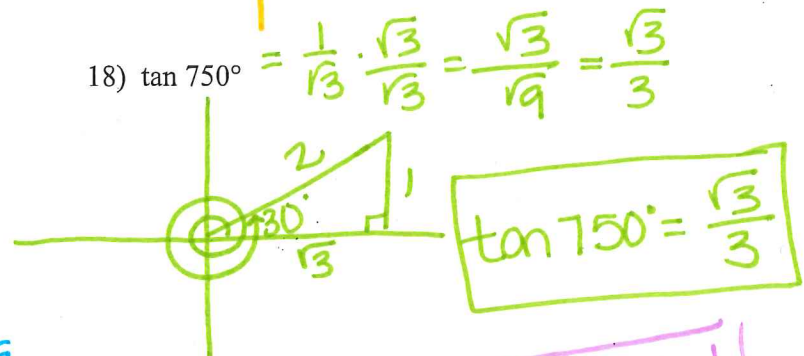
16) $\cos -210^\circ$



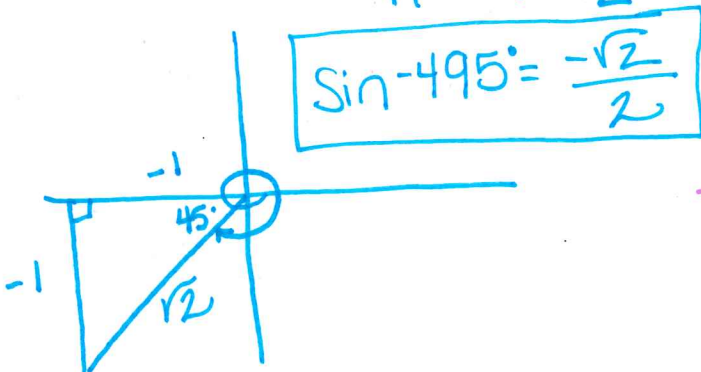
17) $\cos 480^\circ$



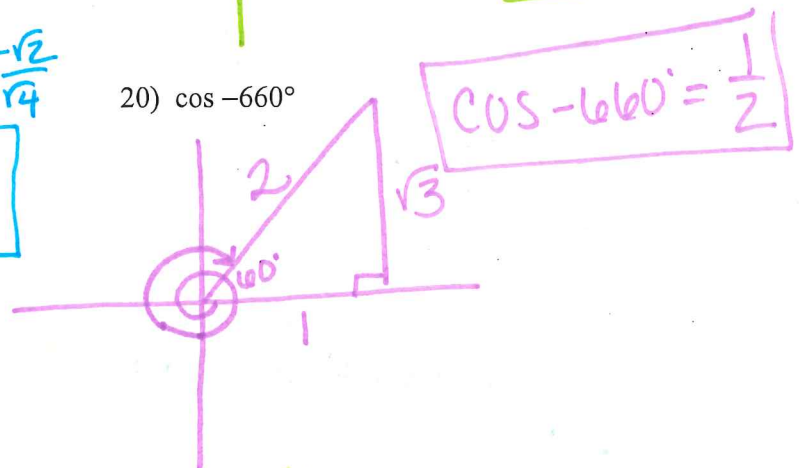
18) $\tan 750^\circ = \frac{1}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{3}}{3}$



19) $\sin -495^\circ = \frac{0}{1} = \frac{-1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{-\sqrt{2}}{2}$



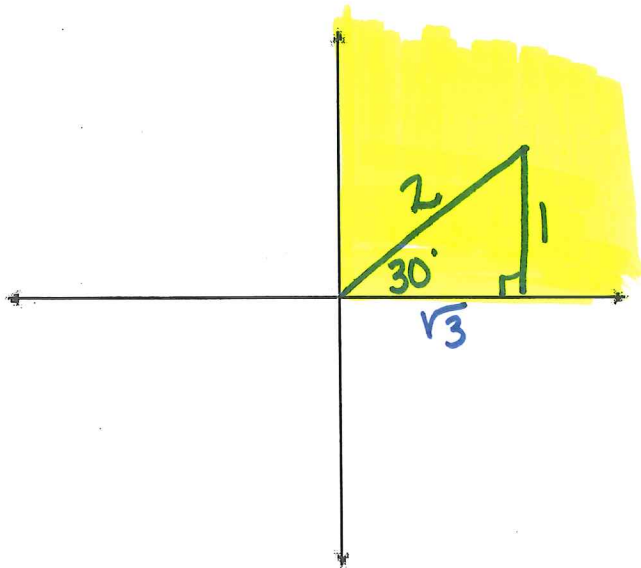
20) $\cos -660^\circ$



21. If $\cos\theta = \frac{\sqrt{3}}{2}$ and in **quadrant I**, complete the following:

- Construct the triangle on the coordinate plane.
- Find the value of the reference angle in degrees.
- Find the length of the missing side.
- Find the value of $\sin\theta$.

a.)



b.) Reference angle = 30°

Angle $\theta = 30^\circ$

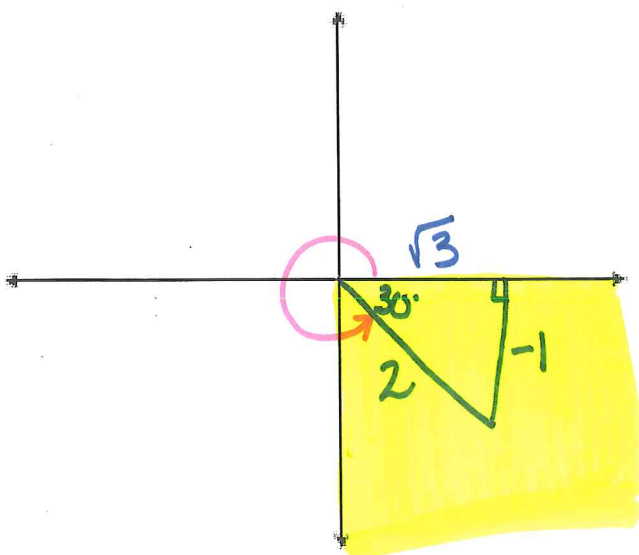
c.) missing side length = 1

d.) $\sin\theta = \frac{1}{2}$

22. If $\sin\theta = -\frac{1}{2}$ and in **quadrant IV**, complete the following:

- Construct the triangle on the coordinate plane.
- Find the value of the reference angle in degrees.
- Find the length of the missing side.
- Find the value of $\cos\theta$.

a.)



b.) Reference angle = 30°

Angle $\theta = 360 - 30^\circ$

$\theta = 330^\circ$

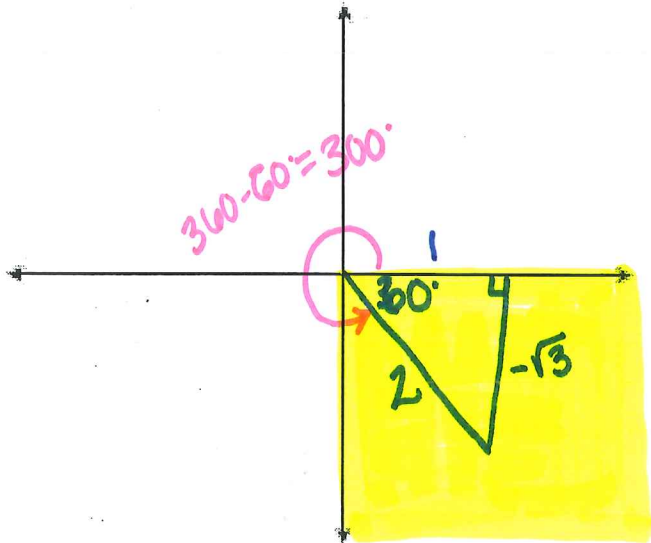
c.) missing side length = $\sqrt{3}$

d.) $\cos\theta = \frac{\sqrt{3}}{2}$

23. If $\sin\theta = -\frac{\sqrt{3}}{2}$ and in **quadrant IV**, complete the following:

- Construct the triangle on the coordinate plane.
- Find the value of the reference angle in degrees.
- Find the length of the missing side.
- Find the value of $\cos\theta$.

b.)



b.) Reference angle = 60°
 Angle $\theta = 300^\circ$

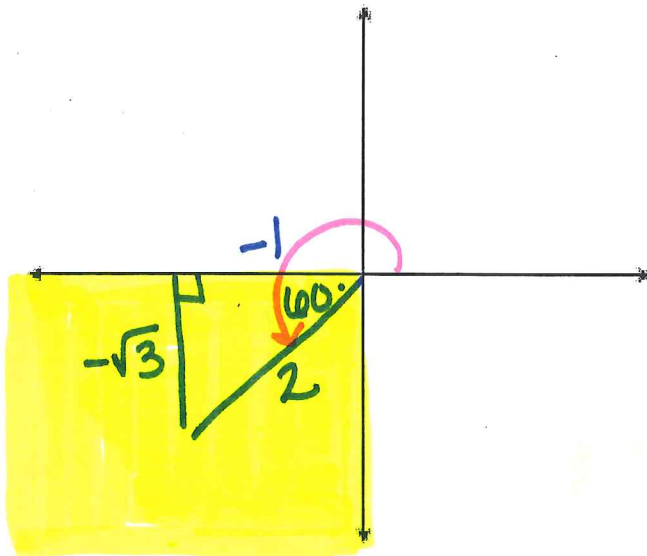
c.) missing side length = 1

d.) $\cos\theta = \frac{1}{2}$

24. If $\cos\theta = -\frac{1}{2}$ and in **quadrant III**, complete the following:

- Construct the triangle on the coordinate plane.
- Find the value of the reference angle in degrees.
- Find the length of the missing side.
- Find the value of $\sin\theta$.

b.)



b.) Reference angle = 60°
 Angle $\theta = 180 + 60 = 240^\circ$

c.) missing side length = $-\sqrt{3}$

d.) $\sin\theta = \frac{-\sqrt{3}}{2}$