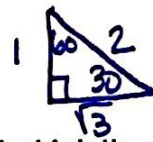


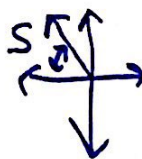
Find the exact values




**The signs of the reciprocal functions are the same as the function of which they are the reciprocal.

Find each exact value.

1) $\sec 120^\circ$

$\cos 120^\circ$

 $180 - 120 = 60$
 $\cos 60 = \frac{1}{2}$
 $\cos 120 = -\frac{1}{2}$
 $\sec 120 = \boxed{-2}$

2) $\sin 210^\circ$

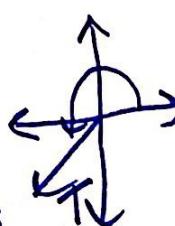

 $210 - 180 = 30$
 $\sin 30 = \frac{1}{2}$
 $\sin 210 = \boxed{-\frac{1}{2}}$

3) $\cot 315^\circ$

4) $\cos 315^\circ$

5) $\csc 150^\circ$

6) $\tan \frac{4\pi}{3} = \boxed{\sqrt{3}}$

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

 $\frac{4\pi}{3} \cdot \frac{180}{\pi} = 240$
 $240 - 180 = 60$
 $\tan 60 = \frac{\sqrt{3}}{1}$
 $\tan 240 = \sqrt{3}$

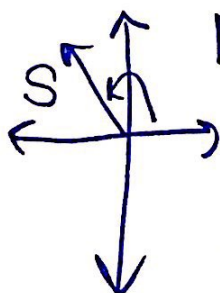
7) $\csc \frac{2\pi}{3}$

8) $\tan \frac{\pi}{2}$

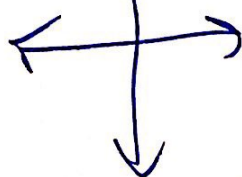
9) $\sec \frac{\pi}{6}$

$\frac{2\pi}{3} \cdot \frac{180}{\pi} = 120$

$\sin 120$


 $180 - 120 = 60$
 $\sin 60 = \frac{\sqrt{3}}{2}$
 $\sin 120 = \frac{\sqrt{3}}{2}$

$\csc \frac{2\pi}{3} = \frac{2}{\frac{\sqrt{3}}{2}} = \frac{2 \cdot 2}{\sqrt{3}} = \frac{4}{\sqrt{3}} = \frac{4\sqrt{3}}{3}$



$\tan \frac{\pi}{2} = \frac{y}{x} = \frac{1}{0}$

undefined

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25-32,
43-58