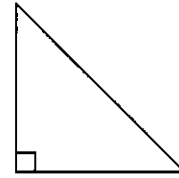
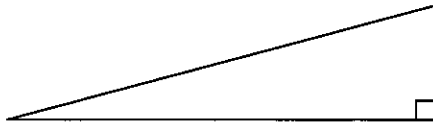


# Reference triangles and Quadrantal Angles — Degree measure only

Key

Label all of the *sides* and *angles* of the special triangles

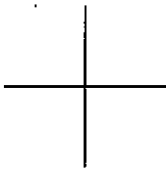


You must show your work

Given an angle - determine the reference angle, then draw the reference triangle.

Label the sides of each triangle, then evaluate each trigonometric function.

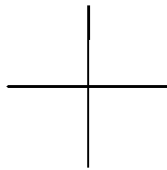
1.  $\theta = 180^\circ$



1a.  $\cos(180^\circ) = -1$

1b.  $\cot(180^\circ) = \text{undef.}$

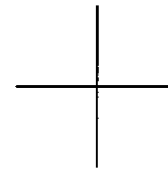
2.  $\theta = 300^\circ \theta' =$



2a.  $\sin(300^\circ) = -\frac{\sqrt{3}}{2}$

2b.  $\sec(300^\circ) = 2$

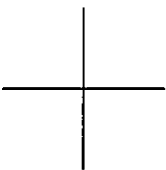
3.  $\theta = 90^\circ$



3a.  $\tan(90^\circ) = \text{undef.}$

3b.  $\csc(90^\circ) = 1$

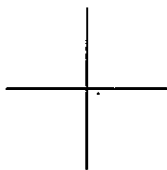
4.  $\theta = 30^\circ \theta' =$



4a.  $\cos(30^\circ) = \frac{\sqrt{3}}{2}$

4b.  $\sec(30^\circ) = \frac{2\sqrt{3}}{3}$

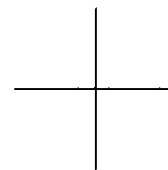
5.  $\theta = 120^\circ \theta' =$



5a.  $\tan(120^\circ) = -\sqrt{3}$

5b.  $\csc(120^\circ) = \frac{2\sqrt{3}}{3}$

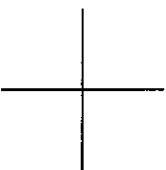
6.  $\theta = 0^\circ$



6a.  $\sin(0^\circ) = 0$

6b.  $\sec(0^\circ) = 1$

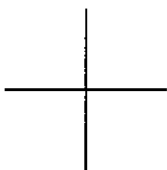
7.  $\theta = 270^\circ$



7a.  $\cot(270^\circ) = 0$

7b.  $\sin(270^\circ) = -1$

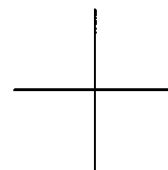
8.  $\theta = 240^\circ \theta' =$



8a.  $\sin(240^\circ) = -\frac{\sqrt{3}}{2}$

8b.  $\cos(240^\circ) = -\frac{1}{2}$

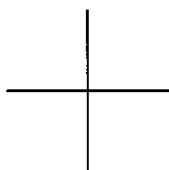
9.  $\theta = 135^\circ \theta' =$



9a.  $\cos(135^\circ) = -\frac{\sqrt{2}}{2}$

9b.  $\cot(135^\circ) = -1$

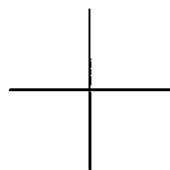
10.  $\theta = -90^\circ$



10a.  $\sin(-90^\circ) = -1$

10b.  $\cot(-90^\circ) = 0$

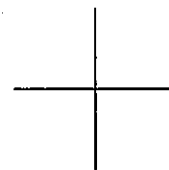
11.  $\theta = -150^\circ$   $\theta' =$



11a.  $\tan(-150^\circ) =$

11b.  $\sec(-150^\circ) = -\frac{2\sqrt{3}}{3}$

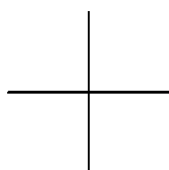
12.  $\theta = 180^\circ$



12a.  $\sin(180^\circ) = 0$

12b.  $\csc(180^\circ) = \text{undef.}$

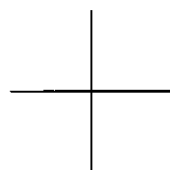
13.  $\theta = 240^\circ$   $\theta' =$



13a.  $\sin(240^\circ) = -\frac{\sqrt{3}}{2}$

13b.  $\sec(240^\circ) = -2$

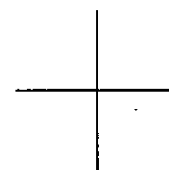
14.  $\theta = 90^\circ$



14a.  $\cos(90^\circ) = 0$

14b.  $\sin(90^\circ) = 1$

15.  $\theta = -225^\circ$   $\theta' =$



15a.  $\cot(-225^\circ) = -1$

15b.  $\sec(-225^\circ) = -\sqrt{2}$

Don't forget

Also complete . . . page 739: 2 – 18 even