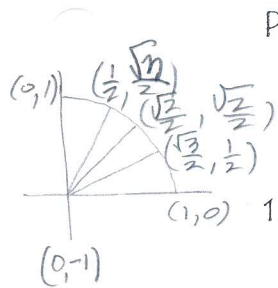


Part I: Evaluate using the unit circle. Show work when appropriate on notebook paper. No decimals.



$$(x, y) = (\cos \theta, \sin \theta) \begin{array}{c|c} (-, +) & (+, +) \\ \hline (-, -) & (+, -) \end{array}$$

1. $\cos 45^\circ$ $\frac{\sqrt{2}}{2}$
2. $\sin 210^\circ$ $-\frac{1}{2}$
 $\theta' = 30^\circ$ QII
3. $\cos 315^\circ$ $\frac{\sqrt{2}}{2}$
 $\theta' = 45^\circ$ QIV
4. $\tan 120^\circ$ $-\frac{\sqrt{3}}{1}$
 $\theta' = 60^\circ$ QII
5. $\sin 90^\circ$ 1
6. $\tan 225^\circ$ $\frac{1}{1}$
 $\theta' = 45^\circ$ QIII
7. $\sin 150^\circ$ $\frac{1}{2}$
 $\theta' = 30^\circ$ QII
8. $\cos 180^\circ$ -1
9. $\tan 270^\circ$ undefined
10. $\cos 390^\circ$ $\frac{\sqrt{3}}{2}$
 $\theta' = 30^\circ$ QI
11. $\sin 420^\circ$ $\frac{\sqrt{3}}{2}$
 $\theta' = 60^\circ$ QI
12. $\csc 30^\circ$ 2
13. $\cos 540^\circ$ -1
 $\theta' = 180^\circ$
14. $\sec 315^\circ$ $\frac{\sqrt{2}}{1}$
 $\theta' = 45^\circ$ QIV
15. $\tan 60^\circ$ $\sqrt{3}$
16. $\cot 30^\circ$ $\sqrt{3}$
17. $\csc 0^\circ$ undefined
18. $\sin -60^\circ$ $-\frac{\sqrt{3}}{2}$
QIV
19. $\sec 135^\circ$ $-\frac{\sqrt{2}}{1}$
 $\theta' = 45^\circ$ QII
20. $\cot -150^\circ$ $\frac{\sqrt{3}}{1}$
 $\theta' = 30^\circ$ QIII
21. $\csc 300^\circ$ $-\frac{2\sqrt{3}}{3}$
 $\theta' = 60^\circ$ QIV
22. $\tan -60^\circ$ $-\frac{\sqrt{3}}{1}$
QIV
23. $\sec -90^\circ$ undefined
24. $\cos -120^\circ$ $-\frac{1}{2}$
 $\theta' = 60^\circ$ QIII
25. $\sin -45^\circ$ $-\frac{\sqrt{2}}{2}$
QIV
26. $\cot 135^\circ$ $-\frac{1}{1}$
 $\theta' = 45^\circ$ QII
27. $\csc 360^\circ$ undefined
28. $\tan 480^\circ$ $-\frac{\sqrt{3}}{1}$
 $\theta' = 60^\circ$ QII
29. $\sin 180^\circ$ 0
30. $\sec -60^\circ$ 2
QIV
31. $\cos 720^\circ$ 1
 $\theta' = 0^\circ$
32. $\cot -210^\circ$ $\frac{\sqrt{3}}{1}$
 $\theta' = 30^\circ$ QII
33. $\tan 120^\circ$ $-\frac{\sqrt{3}}{1}$
 $\theta' = 60^\circ$ QII
34. $\csc 150^\circ$ 2
 $\theta = 30^\circ$ QII
35. $\tan -45^\circ$ $-\frac{1}{1}$
QIV
36. $\sec 30^\circ$ $\frac{2\sqrt{3}}{3}$
37. $\sin 300^\circ$ $-\frac{\sqrt{3}}{2}$
 $\theta = 60^\circ$ QIV
38. $\cos 510^\circ$ $-\frac{\sqrt{3}}{2}$
 $\theta' = 30^\circ$ QII
39. $\cot 90^\circ$ 0
40. $\tan 180^\circ$ 0
41. $\csc -30^\circ$ -2
QIV
42. $\sin 270^\circ$ -1
43. $\cos 225^\circ$ $-\frac{\sqrt{2}}{2}$
 $\theta' = 45^\circ$ QIII
44. $\sin 390^\circ$ $\frac{1}{2}$
 $\theta' = 30^\circ$ QI
45. $\tan 120^\circ$ $-\frac{\sqrt{3}}{1}$
 $\theta' = 60^\circ$ QII

① reference \angle

② Quadrant

③ Sign

④ value

RQSV