

# PC 12 LG 5 Review Sheet

1. Find all the angles,  $A$ , that are co-terminal with  $70^\circ$  and in the domain:  $-720^\circ \leq A < 720^\circ$
2. Determine all the angles,  $A$ , that are co-terminal with  $70^\circ$ .
3. Are the angles  $-200^\circ$  and  $520^\circ$  co-terminal?

**Determine the coordinate for all points on the unit circle satisfying the following conditions:**

4. the x-coordinate is  $\frac{3}{5}$
5. the y-coordinate is  $\frac{-\sqrt{3}}{2}$
6. The point  $(r, t)$  is a point of intersection of the terminal arm of  $\angle \theta$  in standard position and the unit circle centered at  $(0, 0)$ . What is the value of  $\sec \theta$ ?
7. The point  $(w, z)$  is on the terminal arm of  $\angle \theta$  in standard position. What is the value of  $\csc \theta$ ?

**Find the exact value for each trigonometric ratio.**

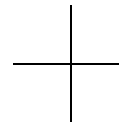
8.  $\csc 315^\circ$
9.  $\cot -150^\circ$
10.  $\sec^2 225^\circ$
11.  $\tan^3 180^\circ$
12.  $(\cot -330^\circ)^2$
13.  $\sin^3 -270^\circ$
14.  $\csc^4 225^\circ$

**Find the value for each trigonometric ratio to 3 decimal places.**

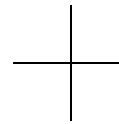
15.  $\sin -200^\circ$
16.  $\sec 140^\circ$
17.  $\cot 608^\circ$
18.  $\csc -170^\circ$

**If  $\angle A$  is an angle in standard position, in which quadrant may  $\angle A$  terminate?**

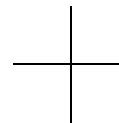
19.  $\sin A > 0$  and  $\cos A < 0$



20.  $\csc A < 0$  and  $\cot A > 0$



21.  $\sec A > 0$  and  $\tan A < 0$



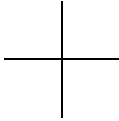
**Find the exact value of each of the following.**

22.  $\sin 150^\circ + \cos 300^\circ$
23.  $\csc^2 315^\circ - \sec^2 225^\circ$
24. If the terminal arm of  $\angle B$  passes through the point  $(-2, 4)$ . Find the exact values of the 6 trigonometric ratios of  $\angle B$ .

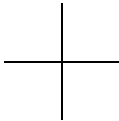
# PC 12 LG 5 Review Sheet

Given  $\sin A = \frac{-1}{5}$ , find all values of  $\sec A$  if:

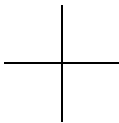
25.  $0^\circ \leq A < 360^\circ$



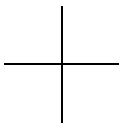
26.  $-90^\circ \leq A < 90^\circ$



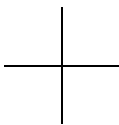
27.  $\tan A > 0$



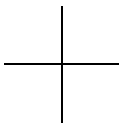
28.  $\angle A$  terminates in quadrant IV



29.  $-360^\circ \leq A < 180^\circ$



30. If  $\tan A = \frac{-3}{2}$  and  $0^\circ \leq A < 360^\circ$ , find all the exact values of  $\csc A$ .



## Answer Key

- |  |   |
|--|---|
| <p>1. <math>-650^\circ, -290^\circ, 430^\circ</math></p> <p>2. <math>70^\circ + 360n, n \in I</math></p> <p>3. Yes</p> <p>4. <math>\left(\frac{3}{5}, \frac{4}{5}\right), \left(\frac{3}{5}, -\frac{4}{5}\right)</math></p> <p>5. <math>\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right), \left(-\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)</math></p> <p>6. <math>\frac{1}{r}</math></p> <p>7. <math>\frac{\sqrt{w^2 + z^2}}{z}</math></p> <p>8. <math>-\sqrt{2}</math></p> <p>9. <math>\sqrt{3}</math></p> <p>10. 2</p> <p>11. 0</p> <p>12. <math>\frac{3}{4}</math></p> <p>13. -1</p> <p>14. 4</p> <p>15. 0.342</p> | <p>16. -1.305</p> <p>17. 0.404</p> <p>18. -5.759</p> <p>19. II</p> <p>20. III</p> <p>21. IV</p> <p>22. 1</p> <p>23. 0</p> <p>24. <math>\frac{2}{\sqrt{5}}, \frac{-1}{\sqrt{5}}, -2, \frac{\sqrt{5}}{2}, -\sqrt{5}, \frac{-1}{2}</math></p> <p>25. <math>\frac{5}{2\sqrt{6}}, \frac{-5}{2\sqrt{6}}</math></p> <p>26. <math>\frac{5}{2\sqrt{6}}</math></p> <p>27. <math>\frac{-5}{2\sqrt{6}}</math></p> <p>28. <math>\frac{5}{2\sqrt{6}}</math></p> <p>29. <math>\frac{5}{2\sqrt{6}}, \frac{-5}{2\sqrt{6}}</math></p> <p>30. <math>\frac{\sqrt{13}}{3}, \frac{-\sqrt{13}}{3}</math></p> |
|--|---|