

PC 12 LG 6 Review Sheet

1. Find all the angles, A , that are co-terminal with $\frac{2\pi}{5}$ and in the domain: $-4\pi \leq A < 4\pi$

2. Determine all the angles, A , that are co-terminal with $\frac{2\pi}{5}$.

3. Are the angles $\frac{7\pi}{12}$ and $\frac{43\pi}{12}$ co-terminal?

Convert the following to degrees exactly.

4. $\frac{-4\pi}{3}$ 5. $\frac{11\pi}{4}$

Convert the following to degrees exactly.

6. 150° 7. 200°

Convert to degrees to nearest tenth.

8. 4 9. $\frac{-5\pi}{6}$

Convert to radians to nearest hundredth.

10. 45° 11. -340°

Find the exact value for each trigonometric ratio.

12. $\csc \frac{7\pi}{4}$ 13. $\cot \frac{-5\pi}{6}$

14. $\sec^2 \frac{5\pi}{4}$ 15. $\tan^3 \pi$

16. $\left(\cos \frac{-11\pi}{6}\right)^2$ 17. $\sin^3 \frac{-3\pi}{2}$

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

18. $\cos \frac{-5\pi}{7}$ 19. $\cot \frac{3\pi}{8}$

20. $\csc \frac{12}{7\pi}$ 21. $\sec \frac{-15\pi}{7}$

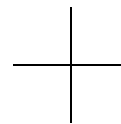
Find the exact value of each of the following.

22. $\sin \frac{5\pi}{6} + \cos \frac{5\pi}{3}$

23. $\csc^2 \frac{7\pi}{4} - \sec^2 \frac{4\pi}{3}$

24. $\sin^3 \frac{3\pi}{2} + \cos^5 \pi$

25. If the terminal arm of $\angle B$ passes through the point $(-2, -6)$. Find the exact values of the 6 trigonometric ratios of $\angle B$.



26. Find, to 2 decimal places, the length of the arc subtended by a central angle of $\frac{7\pi}{5}$ in a circle with a radius of 10 cm.

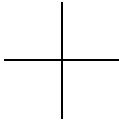
27. If an arc whose length is 20 m subtends a central angle of 130° , find the exact radius of the circle.

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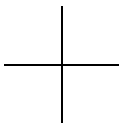
28. Find, to 1 decimal place, the arc length subtended by a central angle of 2.57 in a circle with a radius of 15 cm.

Given $\cos A = \frac{2}{3}$, find all values of $\csc A$ if:

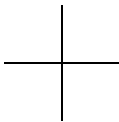
29. $0 \leq A < 2\pi$



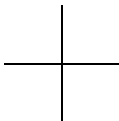
30. $\frac{-\pi}{2} \leq A < 0$



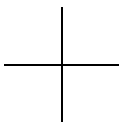
31. $\cot A > 0$



32. $\angle A$ terminates in quadrant IV



33. $-2\pi \leq A < \pi$



Answer Key

- | | |
|---|--|
| 1. $\frac{-18\pi}{5}, \frac{-8\pi}{5}, \frac{12\pi}{5}$ | 18. -0.623 |
| 2. $\frac{2\pi}{5} + 2n\pi, n \in I$ | 19. 0.414 |
| 3. No | 20. 1.927 |
| 4. -240° | 21. 1.110 |
| 5. 495° | 22. 1 |
| 6. $\frac{5\pi}{6}$ | 23. -2 |
| 7. $\frac{10\pi}{9}$ | 24. -2 |
| 8. 229.2° | 25. $\frac{-3}{\sqrt{10}}, \frac{-1}{\sqrt{10}}, 3, \frac{-\sqrt{10}}{3}, -\sqrt{10}, \frac{1}{3}$ |
| 9. -150° | 26. 43.98 cm |
| 10. 0.79 | 27. $\frac{360}{13\pi}$ m |
| 11. -5.93 | 28. 38.6 cm |
| 12. $-\sqrt{2}$ | 29. $\frac{3}{\sqrt{5}}, \frac{-3}{\sqrt{5}}$ |
| 13. $\sqrt{3}$ | 30. $\frac{-3}{\sqrt{5}}$ |
| 14. 2 | 31. $\frac{3}{\sqrt{5}}$ |
| 15. 0 | 32. $\frac{-3}{\sqrt{5}}$ |
| 16. $\frac{3}{4}$ | 33. $\frac{3}{\sqrt{5}}, \frac{-3}{\sqrt{5}}$ |
| 17. 1 | |