

Name: _____

Period: _____

I. Find the exact value for all 6 trigonometric functions if the terminal side of θ passes through the given point.

1. $(-3, -4)$	2. $(-2, 3)$
$\sin \theta =$	$\sin \theta =$
$\cos \theta =$	$\cos \theta =$
$\tan \theta =$	$\tan \theta =$
$\csc \theta =$	$\csc \theta =$
$\sec \theta =$	$\sec \theta =$
$\cot \theta =$	$\cot \theta =$

II. Let θ be an angle in standard position. In what quadrant(s) or (+/-) axis can θ terminate, given...

3. $\csc \theta < 0, \cos \theta < 0$	4. $\sin \theta < 0, \sec \theta > 0$	5. $\tan \theta = 0, \cos \theta < 0$	6. $\cot \theta < 0$
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III. Determine whether each of the following has a value that is positive, negative, 0, or ± 1 .

7. $\sin \frac{11\pi}{6}$	8. $\cos \frac{11\pi}{3}$	9. $\cos 270^\circ$	10. $\sin 7\pi$
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IV. Find the exact values of the 6 trigonometric functions, given

11. $\sin \theta = -\frac{4}{5}$; Quadrant IV	12. $\tan \theta = \frac{3}{5}$; Quadrant III
$\sin \theta =$	$\sin \theta =$
$\cos \theta =$	$\cos \theta =$
$\tan \theta =$	$\tan \theta =$
$\csc \theta =$	$\csc \theta =$
$\sec \theta =$	$\sec \theta =$
$\cot \theta =$	$\cot \theta =$

V. Find the reference angle for each. (Keep radians in radians and degrees in degrees!)

13. 118°	14. $\frac{5\pi}{3}$	15. $-\frac{5\pi}{4}$	16. 625°
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VI. Evaluate. Give the exact simplified value. (NO decimals and NO calculators!)

17. $\sec 2\pi$	18. $\cos 210^\circ$	19. $\tan \frac{3\pi}{4}$
20. $\csc(-225^\circ)$	21. $\cot \frac{10\pi}{3}$	22. $\cos(-240^\circ)$

VII. Find the angle measure(s) for θ that make each statement true where $0^\circ \leq \theta < 360^\circ$.

23. $\sin \theta = -\frac{1}{2}$	24. $\tan \theta = 0$	25. $\csc \theta = \frac{2\sqrt{3}}{3}$
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VIII. Find the angle measure(s) for θ that make each statement true where $0 \leq \theta < 2\pi$.

26. $\cot \theta = -1$	27. $\tan \theta = \frac{\sqrt{3}}{3}$	28. $\cos \theta = -\frac{\sqrt{2}}{2}$
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