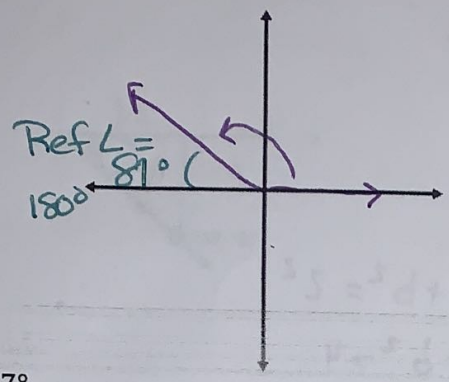
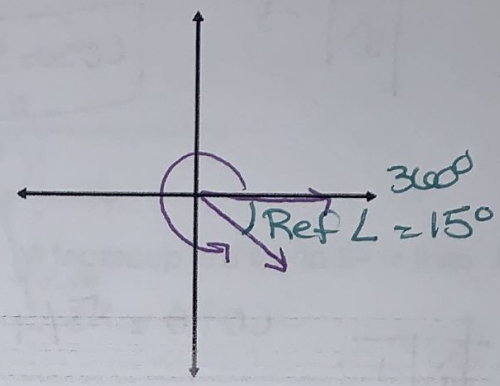
WS #4 Quiz Review

Sketch each angle on coordinate axes. Find the reference angle.

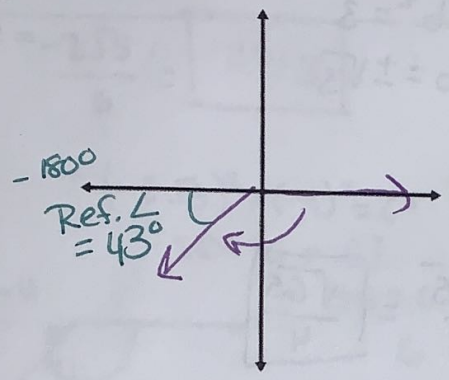
1. $99°$



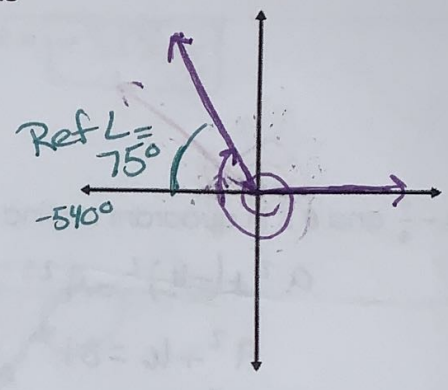
2. $345°$



3. $-137°$



4. $-615°$

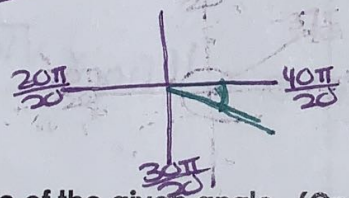


Name the quadrant and reference angle of the given angle

5. $\frac{37\pi}{20}$

IV

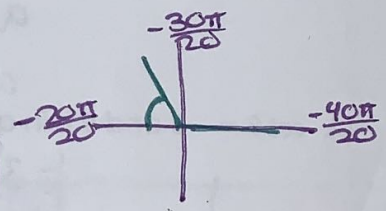
$\frac{3\pi}{20}$



6. $-\frac{27\pi}{20}$

II

$\frac{7\pi}{20}$



Name the coterminal angle of the given angle. (One positive and one negative)

7. $298°$

$658°$
$-62°$

8. $-591°$

$-231°$ $129°$

9. $\frac{9\pi}{5}$

$\frac{19\pi}{5}$ $\frac{-\pi}{5}$

10. $-\frac{21\pi}{8}$

$-\frac{5\pi}{8}$ $\frac{11\pi}{8}$

11. A circle has a radius of 16.4 centimeters. Find the length of the arc intercepted by a central angle with measure $\frac{3\pi}{8}$ radians.

$16.4\left(\frac{3\pi}{8}\right) = 19.32\text{ cm}$

12. Find the length of an arc intercepted by a central angle of 0.745 radians on a circle of radius 11.2 centimeters.

$11.2(0.745) = 8.34\text{ cm}$

13. A circle has a radius of 8.978 centimeters. Find the length of the arc intercepted by a central angle of measure 47.26°.

$\frac{47.26\pi}{180} = .825(8.978)$

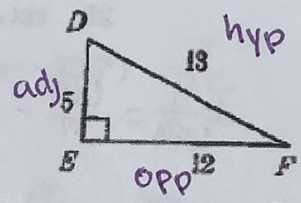
7.41cm

14. A circle has a radius of 12 inches. Find the length of the arc intercepted by a central angle of measure 144°.

$\frac{144\pi}{180} = \frac{4\pi}{5}(12) = \frac{48\pi}{5} =$

30.16 in

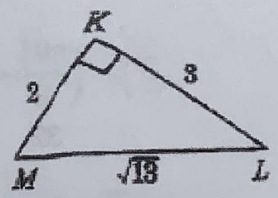
Given the triangle DEF, find the following.



15. $\sin \angle D$ $\frac{12}{13}$

16. $\tan \angle D$ $\frac{12}{5}$

Given the triangle KLM, find the following.



17. $\sin \angle M$ $\frac{3\sqrt{13}}{13}$

18. $\cos \angle M$ $\frac{2\sqrt{3}}{13}$

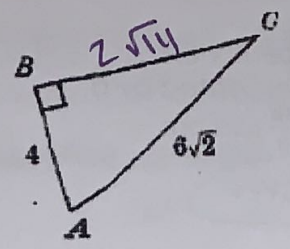
19. $\tan \angle M$ $\frac{3}{2}$

20. $\csc \angle M$ $\frac{\sqrt{13}}{3}$

21. $\sec \angle M$ $\frac{\sqrt{13}}{2}$

22. $\cot \angle M$ $\frac{2}{3}$

Given the triangle ABC, find the following.



23. $\sin \angle A$

$\frac{4\sqrt{7}}{12} = \frac{\sqrt{7}}{3}$

24. $\cos \angle A$

$\frac{4}{6\sqrt{2}} = \frac{2}{3\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{3}$

25. $\tan \angle A$

$\frac{\sqrt{14}}{2}$

26. $\csc \angle A$

$\frac{6\sqrt{2}}{2\sqrt{14}} \cdot \frac{\sqrt{14}}{\sqrt{14}} = \frac{6\sqrt{28}}{28} = \frac{3\sqrt{7}}{7}$

27. $\sec \angle A$

$\frac{6\sqrt{2}}{4} = \frac{3\sqrt{2}}{2}$

28. $\cot \angle A$

$\frac{4}{2\sqrt{14}} = \frac{2\sqrt{14}}{14} = \frac{\sqrt{14}}{7}$

Find the indicated trigonometric function.

29. If $\sin \angle A = \frac{3}{5}$, find $\cos \angle A$

$\frac{4}{5}$

30. If $\sin \theta = \frac{11}{61}$, find $\tan \theta$

$\frac{11}{60}$

31. If $\tan \angle H = \frac{4}{3}$, find $\sin \angle H$

$\frac{4}{5}$

32. If $\sin \angle J = \frac{1}{2}$, find $\cos \angle J$

$\frac{\sqrt{3}}{2}$

33. If $\tan \angle R = \frac{5}{3}$, find $\sin \angle R$

$\frac{5}{\sqrt{34}} = \frac{5\sqrt{34}}{34}$

32. If $\cos \theta = \frac{5}{9}$, find $\tan \theta$

$\frac{\sqrt{56}}{5} = \frac{2\sqrt{14}}{5}$

35. If $\sin \angle L = \frac{2}{5}$, find $\cos \angle L$

$\frac{\sqrt{21}}{5}$

36. If $\tan \theta = 3$, find $\cos \theta$

$\frac{1}{\sqrt{10}} = \frac{\sqrt{10}}{10}$