

Intro to Trig - Review WS

1. $15^\circ \cdot \frac{\pi}{180} = \frac{15\pi}{180} = \boxed{\frac{\pi}{12}}$

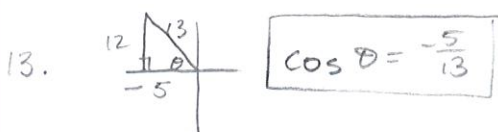
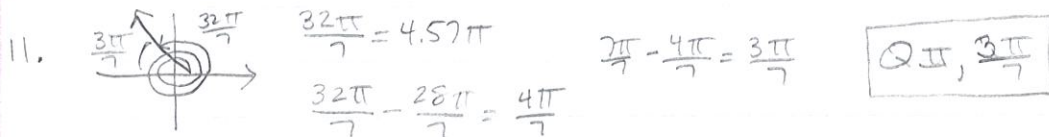
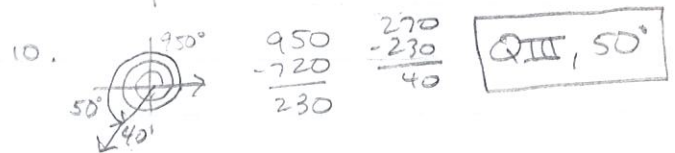
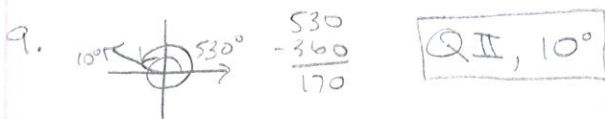
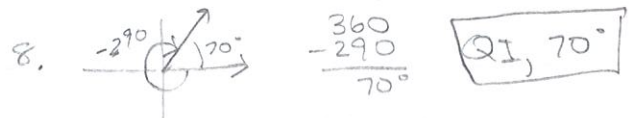
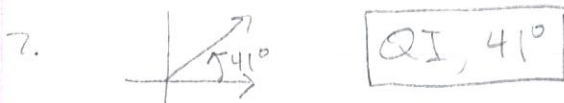
2. $-105 \cdot \frac{\pi}{180} = -\frac{105\pi}{180} = \boxed{-\frac{7\pi}{12}}$

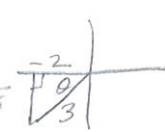
3. $540^\circ \cdot \frac{\pi}{180} = \frac{540\pi}{180} = \boxed{3\pi}$

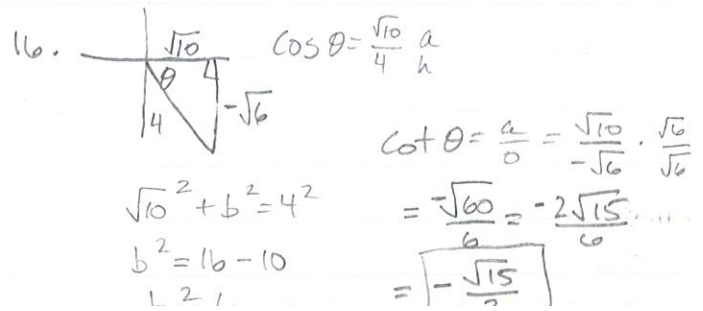
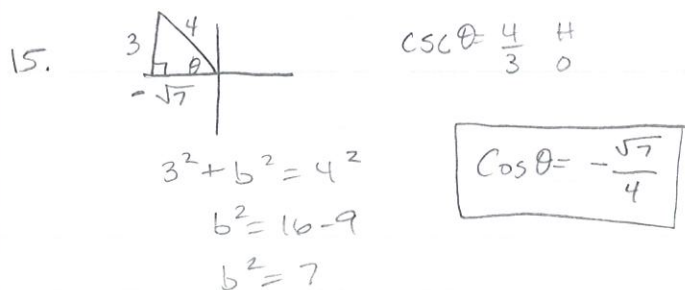
4. $-\frac{7\pi}{9} \cdot \frac{180}{\pi} = \boxed{-140^\circ}$

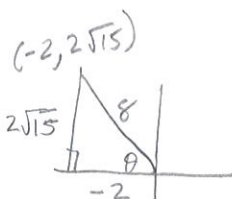
5. $\frac{11\pi}{8} \cdot \frac{180}{\pi} = \boxed{396^\circ}$

6. $8\pi \cdot \frac{180}{\pi} = \boxed{1440^\circ}$



14.  $\sec \theta = -\frac{3}{2} \frac{h}{a}$
 $\tan \theta = \frac{-\sqrt{5}}{-2} = \frac{\sqrt{5}}{2}$
 $(-2)^2 + b^2 = 3^2$
 $b^2 = 9 - 4 \quad b^2 = 5$



17.  $(-2, 2\sqrt{15})$

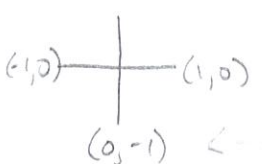
$$(-2)^2 + (2\sqrt{15})^2 = c^2$$

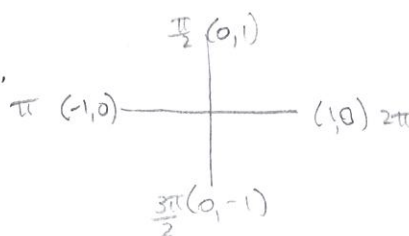
$$4 + 60 = c^2$$

$$64 = c^2$$

$$\csc \theta = \frac{h}{o} = \frac{8}{2\sqrt{15}} = \frac{4}{\sqrt{15}} \cdot \frac{\sqrt{15}}{\sqrt{15}} = \boxed{\frac{4\sqrt{15}}{15}}$$

18. $\frac{\sqrt{S} \sqrt{A}}{T \sqrt{C}}$ Q II

19.  $\tan = \frac{y}{x} = \frac{-1}{0} = \text{B. } \tan 270^\circ$

20.  $\frac{\pi}{2} (0, 1)$
 $\pi (-1, 0)$ $(1, 0) 2\pi$
 $\frac{3\pi}{2} (0, -1)$

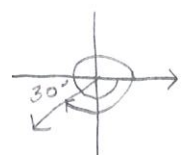
(\cos, \sin)
 (x, y)
 $\sec = \frac{1}{x}$ \leftarrow x is zero at $\frac{\pi}{2}$ and $\frac{3\pi}{2}$


21. $360^\circ - 10^\circ = \boxed{350^\circ}$

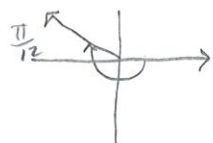
22. $4\pi + \frac{\pi}{2} + \frac{\pi}{12} = \boxed{\frac{55\pi}{12}}$

23. $\frac{\pi}{2} - \frac{\pi}{3} = \frac{3\pi}{6} - \frac{2\pi}{6} = \frac{\pi}{6}$

$2\pi + \frac{\pi}{6} = \frac{12\pi}{6} + \frac{\pi}{6} = \frac{13\pi}{6}$ $-\frac{13\pi}{6}$

24.  $\frac{510}{-360} = \frac{180}{-150} = \boxed{30^\circ}$

25.  $\pi - \frac{13\pi}{18} = \frac{18\pi}{18} - \frac{13\pi}{18} = \boxed{\frac{5\pi}{18}}$

26.  $\frac{13\pi}{12} - \frac{12\pi}{12} = \boxed{\frac{\pi}{12}}$

27. $\frac{17\pi}{36} + \frac{72\pi}{36} = \frac{89\pi}{36} + \frac{72\pi}{36} = \frac{161\pi}{36}$ Yes

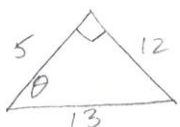
28. $90^\circ + 360^\circ = 450^\circ$ No

29. $-435^\circ + 360^\circ = -75^\circ$ $-75^\circ + 360^\circ = \boxed{285^\circ}$

30. $\frac{11\pi}{3} - \frac{6\pi}{3} = \boxed{\frac{5\pi}{3}}$

31. $-\frac{7\pi}{6} + \frac{12\pi}{6} = \boxed{\frac{5\pi}{6}}$ $-\frac{7\pi}{6} - \frac{12\pi}{6} = \boxed{-\frac{19\pi}{6}}$


32. $640^\circ - 360^\circ = \boxed{280^\circ}$ $280^\circ - 360^\circ = \boxed{-80^\circ}$

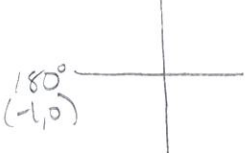
33.  $\sin \theta = \frac{12}{13}$ $\cos \theta = \frac{5}{13}$ $\tan \theta = \frac{12}{5}$
 $\csc \theta = \frac{13}{12}$ $\sec \theta = \frac{13}{5}$ $\cot \theta = \frac{5}{12}$

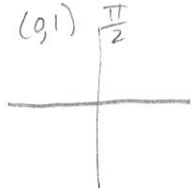
34.  $\cos \theta = \frac{2}{5}$ $2^2 + b^2 = 5^2$
 $b^2 = 25 - 4$ $b^2 = 21$

$\sin \theta = \frac{\sqrt{21}}{5}$ $\cos \theta = \frac{2}{5}$ $\tan \theta = \frac{\sqrt{21}}{2}$

$\csc \theta = \frac{5}{\sqrt{21}} = \frac{5\sqrt{21}}{21}$ $\sec \theta = \frac{5}{2}$ $\cot \theta = \frac{2}{\sqrt{21}} = \frac{2\sqrt{21}}{21}$

35.  (\cos, \sin)
 (x, y) $\tan \frac{y}{x} = \frac{1}{0} = \boxed{\text{undefined}}$

36.  (\cos, \sin)
 (x, y) $\boxed{\sin 180^\circ = 0}$

37.  (\cos, \sin)
 (x, y) $\csc = \frac{1}{y} = \frac{1}{1} = \boxed{1}$