8. $\csc^{-1}(7)$

$\theta = \csc^{-1}(7)$

$\csc\theta = \csc(\csc^{-1}(7))$

$\csc\theta = 7$

$\frac{1}{\sin\theta} = \frac{7}{1}$

$\frac{\sin\theta}{1} = \frac{1}{7}$

$\sin\theta = \frac{1}{7}$

$\sin^{-1}\sin\theta = \sin^{-1}\left(\frac{1}{7}\right)$

$\theta = \sin^{-1}\left(\frac{1}{7}\right)$

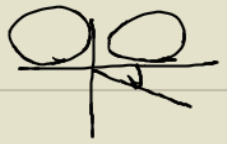
$\theta = 0.14$

9. $\sec^{-1}\left(\frac{-5}{4}\right)$

$= \cos^{-1}\left(\frac{4}{-5}\right)$

$= 2.5$

10. $\cot^{-1}\left(\frac{-5}{2}\right)$



$= \tan^{-1}\left(\frac{-2}{5}\right)$

$= -0.38$

$+ \pi$

2.76

10. $\tan(\cos^{-1}(4+2))$

① $\theta = \cos^{-1}(4+2)$

② $\cos\theta = \cos(\cos^{-1}(4+2))$

$\cos\theta = 4+2$

③ $\cos\theta = \frac{4+2}{1}$ AND cos is $\frac{x}{r}$

so $x = 4+2$ $r = 1$

$x^2 + y^2 = r^2$

$(4+2)^2 + y^2 = 1^2$

$y^2 = 1 - (4+2)^2$

$y = \pm\sqrt{1-(4+2)^2}$

$y = \sqrt{1-(4+2)^2}$

④ tan is $\frac{y}{x}$

$\frac{\sqrt{1-(4+2)^2}}{4+2}$

11. $\cot(\sec^{-1}(4-3))$

① $\theta = \sec^{-1}(4-3)$

② $\sec\theta = \sec(\sec^{-1}(4-3))$

$\sec\theta = 4-3$

③ $\sec\theta = \frac{4-3}{1}$ AND $\sec = \frac{r}{x}$

so $r = 4-3$, $x = 1$

so $x^2 + y^2 = r^2$

$1^2 + y^2 = (4-3)^2$

$1 + y^2 = (4-3)^2$

$y^2 = (4-3)^2 - 1$

$y = \pm\sqrt{(4-3)^2-1}$

$y = \sqrt{(4-3)^2-1}$

④ cot is $\frac{x}{y}$

$\frac{1}{\sqrt{(4-3)^2-1}}$

$\sin^{-1}$	$-\frac{\pi}{2}$ to $\frac{\pi}{2}$
$\cos^{-1}$	0 to π
$\tan^{-1}$	$-\frac{\pi}{2}$ to $\frac{\pi}{2}$
$\csc^{-1}$	$-\frac{\pi}{2}$ to $\frac{\pi}{2}$
$\sec^{-1}$	0 to π
$\cot^{-1}$	0 to π