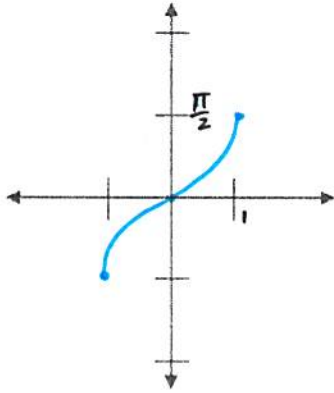
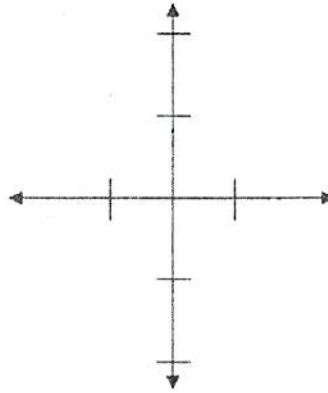


I. Graph each inverse function. Label the axes with an appropriate scale.

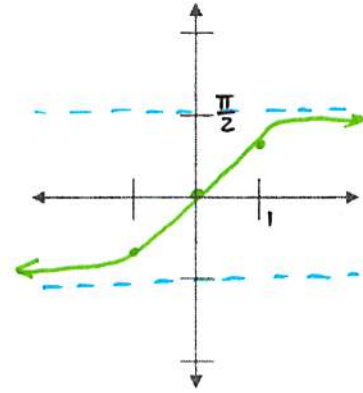
1. $y = \text{Arcsin}(x)$



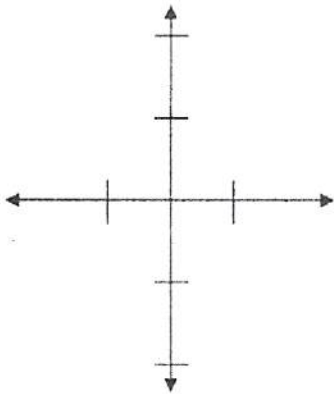
2. $y = \text{Arccos}(x)$



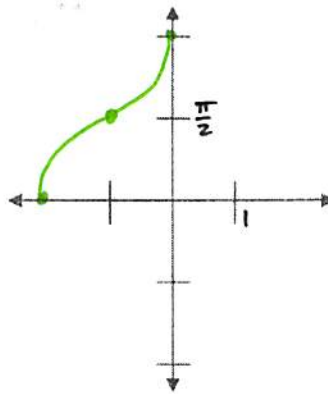
3. $y = \text{Arctan}(x)$



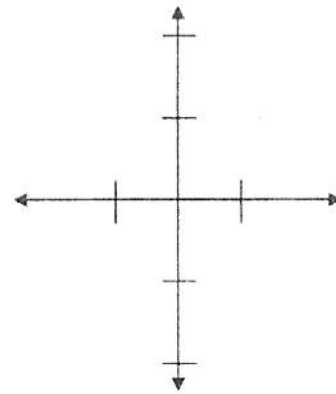
4. $y = \text{Arcsin}(x-1)$



5. $y = \text{Arcsin}(x+1) + \pi/2$



6. $y = \text{Arctan}(x) - \pi/2$



II. Describe the transformations

32. $y = 7 \arccos \frac{1}{3}(x + \pi) - 2$

Vert stretch x7

Horiz stretch x3

left pi

Down 2

33. $y = -3 \arctan(2x + \pi) + 2$

34. $y = \frac{1}{4} \arcsin[-(x-6)]$

Vert Shrink x 1/4

Horiz Reflection (across y)

Right 6

III. Evaluate each inverse expression.

7. $\arcsin\left(-\frac{\sqrt{3}}{2}\right)$

$-\frac{\pi}{3}$

8. $\arctan(-\sqrt{3})$

9. $\arcsin\frac{1}{2}$

$\frac{\pi}{6}$

10. $\arctan\frac{\sqrt{3}}{3}$

11. $\cos^{-1}(-1)$

π

12. $\tan^{-1}(0)$

13. $\tan^{-1}(1)$

$\frac{\pi}{4}$

14. $\sin^{-1}(0)$

15. $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$

$\frac{\pi}{6}$

16. $\sin^{-1}\left(\frac{\sqrt{2}}{2}\right)$

17. $\arccos\left(-\frac{1}{2}\right)$

$\frac{2\pi}{3}$

18. $\arcsin\left(-\frac{\sqrt{2}}{2}\right)$

IV. Evaluate each composition. (tomorrow)

19. $\sin(\sin^{-1}(0.8))$

20. $\sin^{-1}\left(\sin\left(\frac{4\pi}{3}\right)\right)$

21. $\tan\left(\cos^{-1}\left(\frac{1}{2}\right)\right)$

22. $\cos^{-1}\left(\sin\left(\frac{2\pi}{3}\right)\right)$

23. $\sin\left(\tan^{-1}\left(\frac{2}{3}\right)\right)$

24. $\sin^{-1}\left(\cos\left(\frac{5\pi}{6}\right)\right)$