

Complete as many of the following problems as you can with your table. You do not have to go in order. If **your entire table** finishes early, and your answers have been checked, you may leave early.

1. Find the exact value:

(a)  $\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

(b)  $\sin^{-1}\left(-\frac{1}{2}\right)$

(c)  $\tan^{-1}(-\sqrt{3})$

(d)  $\sin(\tan^{-1}(-1))$

2. (a)  $\sin^{-1}\left(\sin\left(-\frac{4\pi}{7}\right)\right)$

(b)  $\cos^{-1}\left(\cos\left(-\frac{4\pi}{7}\right)\right)$

(c)  $\tan\left(\sin^{-1}\left(\frac{4}{7}\right)\right)$

(d)  $\sin\left(\cos^{-1}\left(\frac{1}{3}\right)\right)$

Key:

1. (a)  $\frac{3\pi}{4}$

(b)  $-\frac{\pi}{6}$

(c)  $-\frac{\pi}{3}$

(d)  $-\frac{\sqrt{2}}{2}$

2. (a)  $-\frac{3\pi}{7}$

(b)  $\frac{4\pi}{7}$

(c)  $\frac{4}{\sqrt{33}}$

(d)  $\frac{2\sqrt{2}}{3}$