

Additional Problems Assignment 7

1. Carefully graph the following:

(a) $y = \sin(x - \frac{\pi}{6})$

(b) $y = \cos(x - \frac{\pi}{4})$

(c) $y = \cos(x + \frac{\pi}{4})$

(d) $y = 2 \sin(3x - \frac{3\pi}{2}) - 1$

2. For each of the following use the basic trigonometric identities to find the exact value of the other 5 trig functions for the angle θ (so no calculator). Remember that in each case you need to consider two different quadrants.

(a) $\sin(\theta) = \frac{2}{3}$

(b) $\tan(\theta) = -\frac{5}{4}$

3. Carefully verify the following identity:

$$\sin(\theta) \sec(\theta) = \tan(\theta).$$