

Given one trig ratio, find the remaining 2 ratios.

11) Given $\sin \theta = \frac{1}{4}$ and $\cos \theta$ is negative.

$$\text{II} \quad \cos \theta = -\frac{\sqrt{15}}{4}$$

$$\tan \theta = -\frac{\sqrt{15}}{15}$$

12) Given $\tan \theta = -\frac{5}{3}$ and $\cos \theta$ is positive.

$$\text{IV} \quad \sin \theta = -\frac{5\sqrt{34}}{34} \quad \cos \theta = \frac{3\sqrt{34}}{34}$$

13) Given $\cos \theta = -\frac{4}{5}$ and $\tan \theta$ is positive.

$$\text{III} \quad \sin \theta = -\frac{3}{5}$$

$$\tan \theta = \frac{3}{4}$$

14) Given $\cos \theta = \frac{3}{7}$ find all possible $\sin \theta$ and $\tan \theta$.

$$\text{I} + \text{IV} \quad \begin{array}{l} \text{I} \\ \sin \theta = \frac{2\sqrt{10}}{7} \end{array}$$

$$\tan \theta = \frac{2\sqrt{10}}{3}$$

$$\text{IV} \quad \sin \theta = -\frac{2\sqrt{10}}{7}$$

$$\tan \theta = -\frac{2\sqrt{10}}{3}$$