



8.3 – Extension to the four quadrants

Student name: _____ **Answers** _____ Score: _____

1. α is acute and $\tan \alpha = x$.

Find, in terms of x ,

(a) $\tan(180 - \alpha)$,

$$\tan(180 - \alpha) = \dots\dots\dots \frac{-x}{\dots\dots\dots} \dots\dots\dots [1]$$

(b) $\tan(90 - \alpha)$.

$$\tan(90 - \alpha) = \dots\dots\dots \frac{1}{x} \dots\dots\dots [1]$$

2. $\tan x = k$ $0^\circ < x < 90^\circ$

Find, in terms of k ,

(a) $\tan(180^\circ - x)$,

$$\dots\dots\dots \frac{-k}{\dots\dots\dots} \dots\dots\dots [1]$$

(b) $\tan(90^\circ - x)$.

$$\dots\dots\dots \frac{1}{k} \dots\dots\dots [1]$$