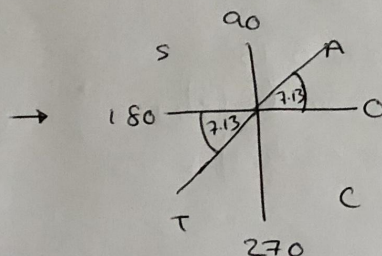


iii) $8 \tan x = 1$

$$\tan x = \frac{1}{8}$$

$$x = \tan^{-1}\left(\frac{1}{8}\right)$$

$$x = 7.13^\circ$$



$$x = 180 + 7.13$$

$$x = 187.13^\circ$$

iv) $\tan^2 x - 14 \tan x + 24 = 0$

$$x^2 - 14x + 24 = 0$$

$$(x - 2)(x - 12) = 0$$

$$x = \frac{-(-14) \pm \sqrt{(-14)^2 - 4(1)(24)}}{2(1)}$$

$$x = \frac{14 \pm \sqrt{196 - 96}}{2}$$

$$x = \frac{14 \pm \sqrt{100}}{2}$$

$$x = \frac{14 \pm 10}{2}$$

$$x = \frac{14 + 10}{2} \quad x = \frac{14 - 10}{2}$$

$$x = \frac{24}{2} \quad x = \frac{4}{2}$$

$$x = 12 \quad x = 2$$