Section 6.1: cont'd

calculate θ if θ is acute and

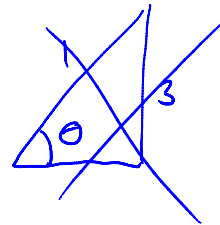a) $\cos \theta = 0.85$

$\theta = \cos^{-1} 0.85 = 31.8°$

b) $\tan \theta = 3$

$\theta = \tan^{-1} 3 = 71.6°$

c) $\sin \theta = 3$
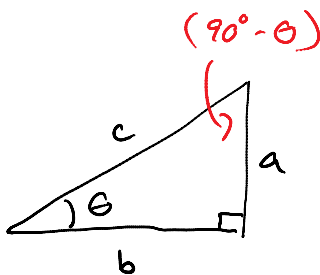
undefined   (or ONE)

Round to one decimal place.

why?

if $\sin \theta = \dfrac{3}{1}$

↑
does not exist

triangle cannot exist

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cofunctions and complements

$(90° - \theta)$

$\sin \theta = \dfrac{a}{c}$ $\sin (90° - \theta) = \dfrac{b}{c}$

$\cos \theta = \dfrac{b}{c}$ $\cos (90° - \theta) = \dfrac{a}{c}$

$\tan \theta = \dfrac{a}{b}$ $\tan (90° - \theta) = \dfrac{b}{a}$

reciprocal

don't memorize these - but we

we'll see them again later