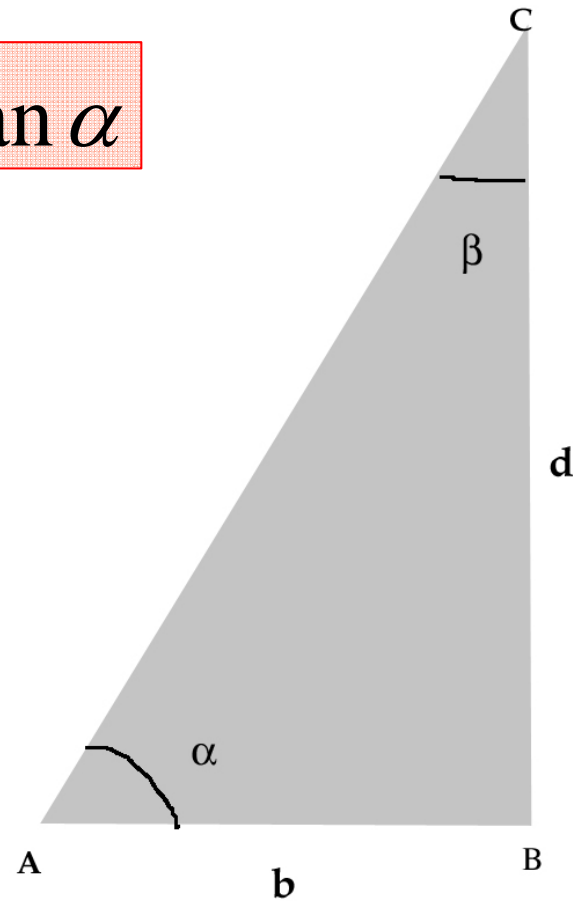
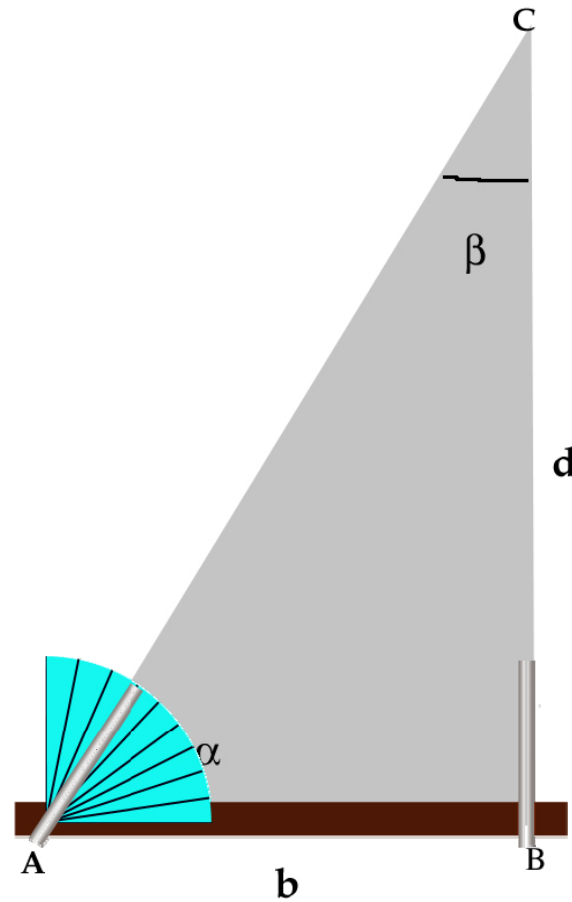


Right-angled triangles

$$d = \overline{BC} = \overline{AB} \tan \alpha = b \tan \alpha$$

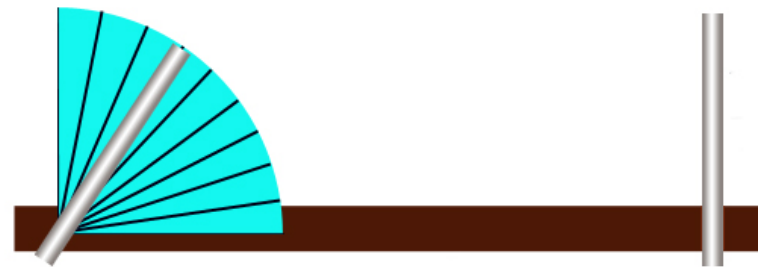


Measuring Distances



Telemeter

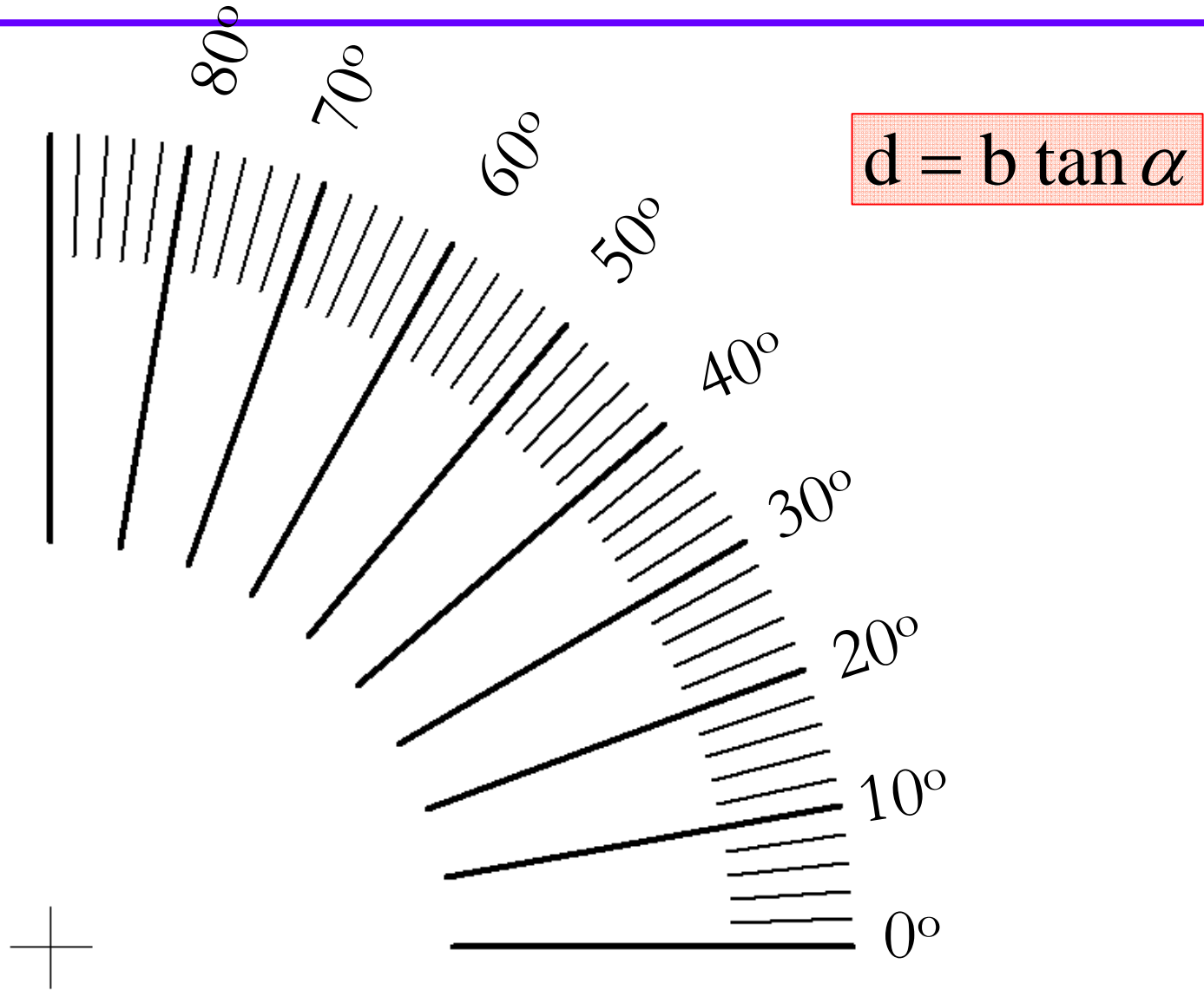
Main Components



Main Components

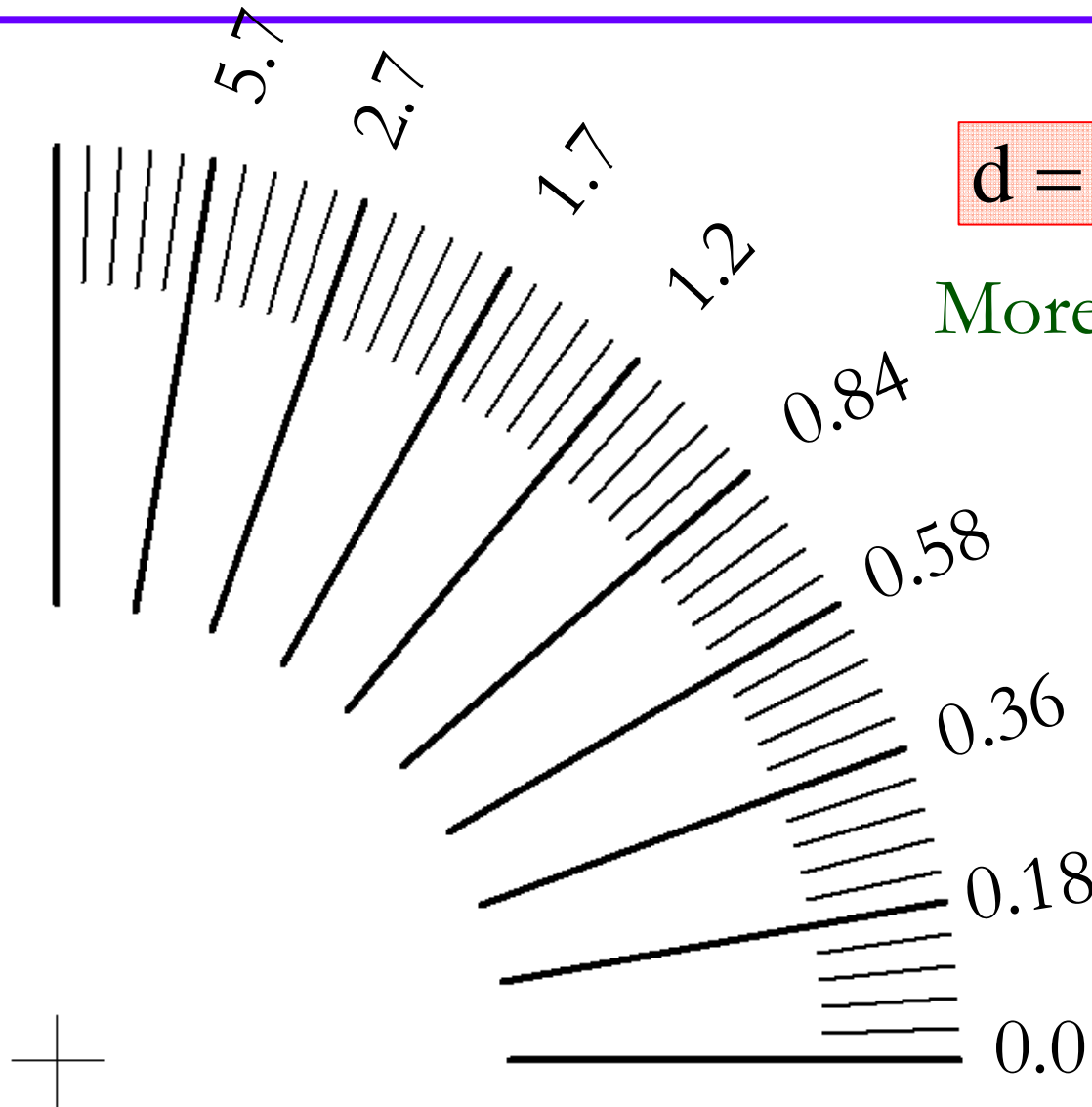


Protractor



Telemeter

Protractor



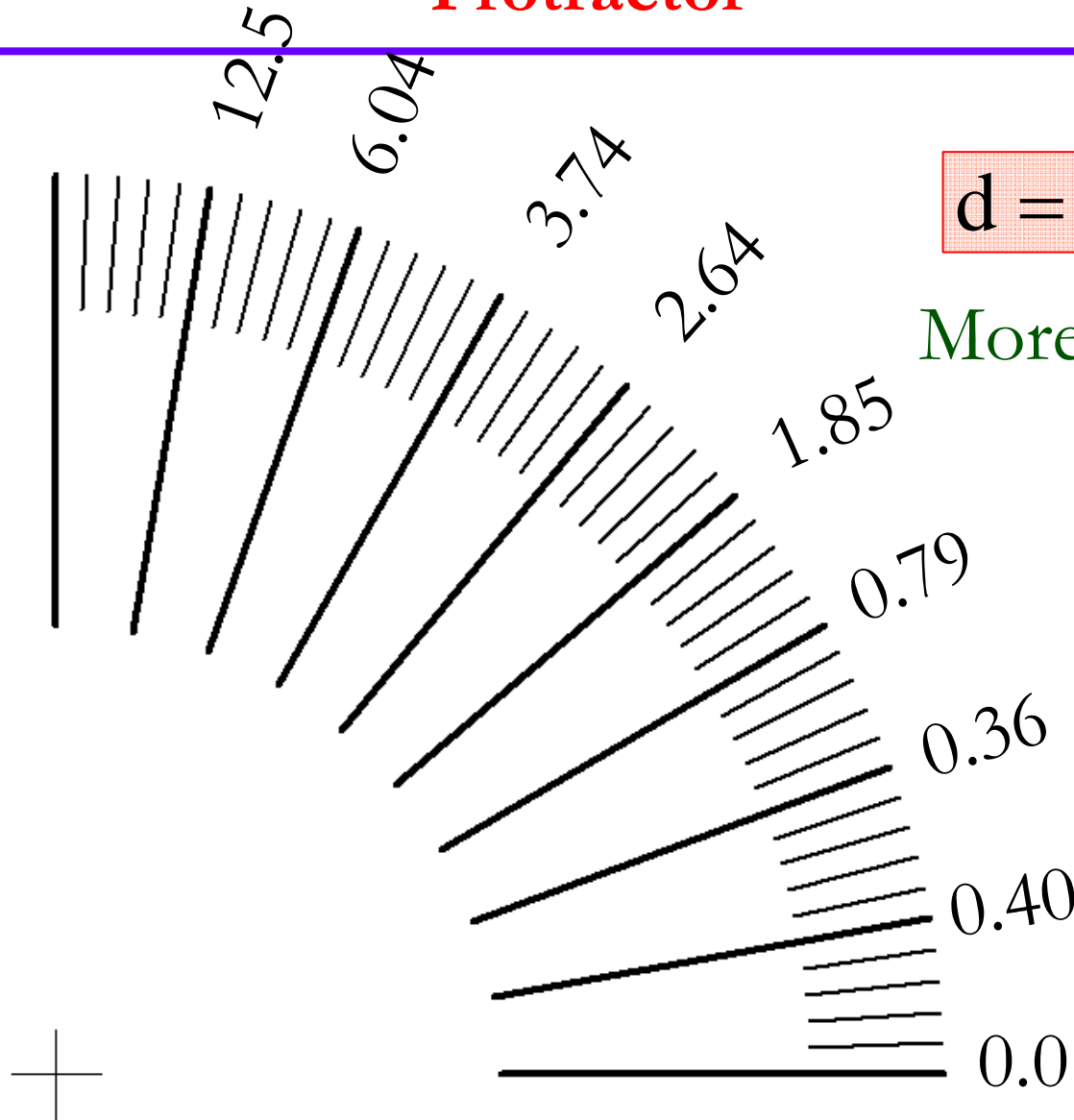
$$d = b \tan \alpha$$

More convenient
put **d** !!

(if $b = 2.20$ m)

Telemeter

Protractor



$$d = b \tan \alpha$$

More convenient
put **d** !!

(if $b = 2.20 \text{ m}$)

Telemeter

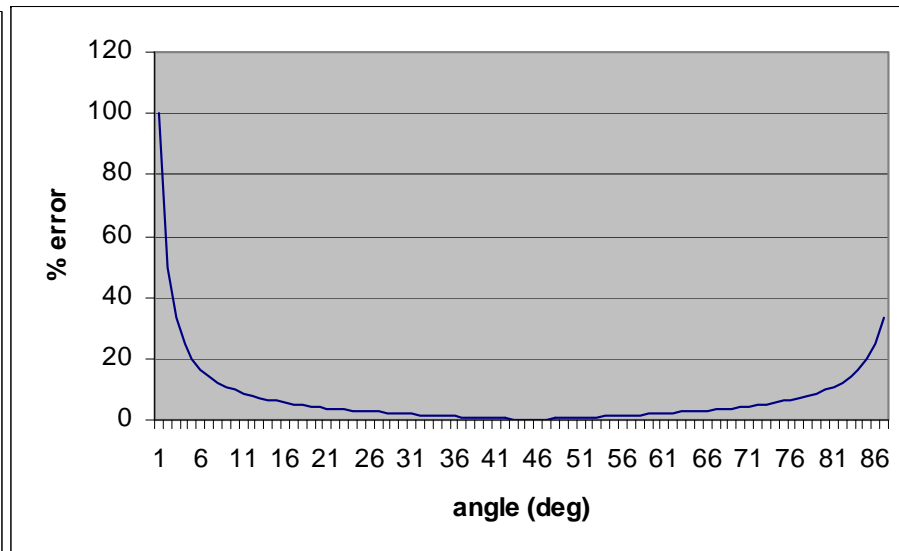
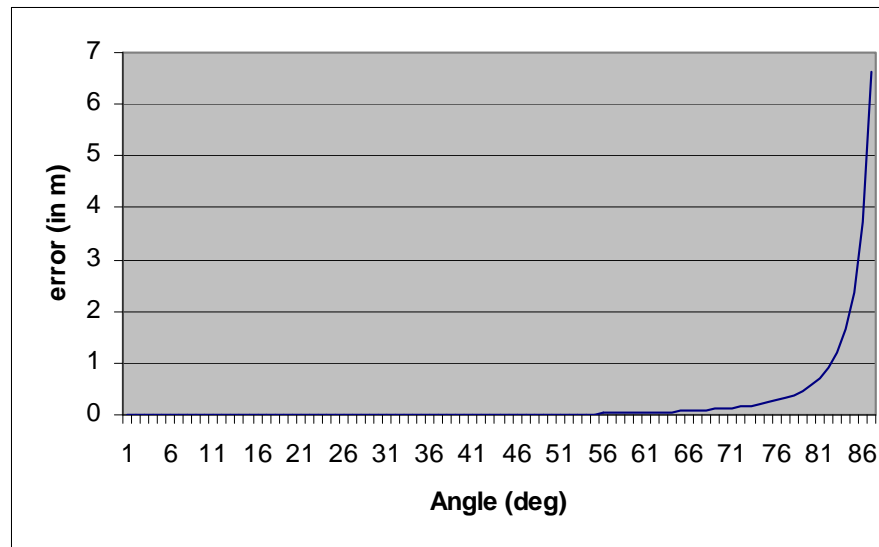
Telemeter: error analysis

$$d = b \tan \alpha$$

$$b = b \pm \Delta b$$

$$\alpha = \alpha \pm \Delta \alpha$$

$$\Delta d = \sqrt{(b - b \tan^2 \alpha)^2 \Delta \alpha^2 + \tan^2 \alpha \Delta b^2}$$



$$(b = 1.050 \pm 0.001 \text{ m} \quad \Delta \alpha = 0.017 \text{ rad} = 1^\circ)$$

Practical realization (tripods)



Telemeter

Practical realization (telemeter)



Telemeter