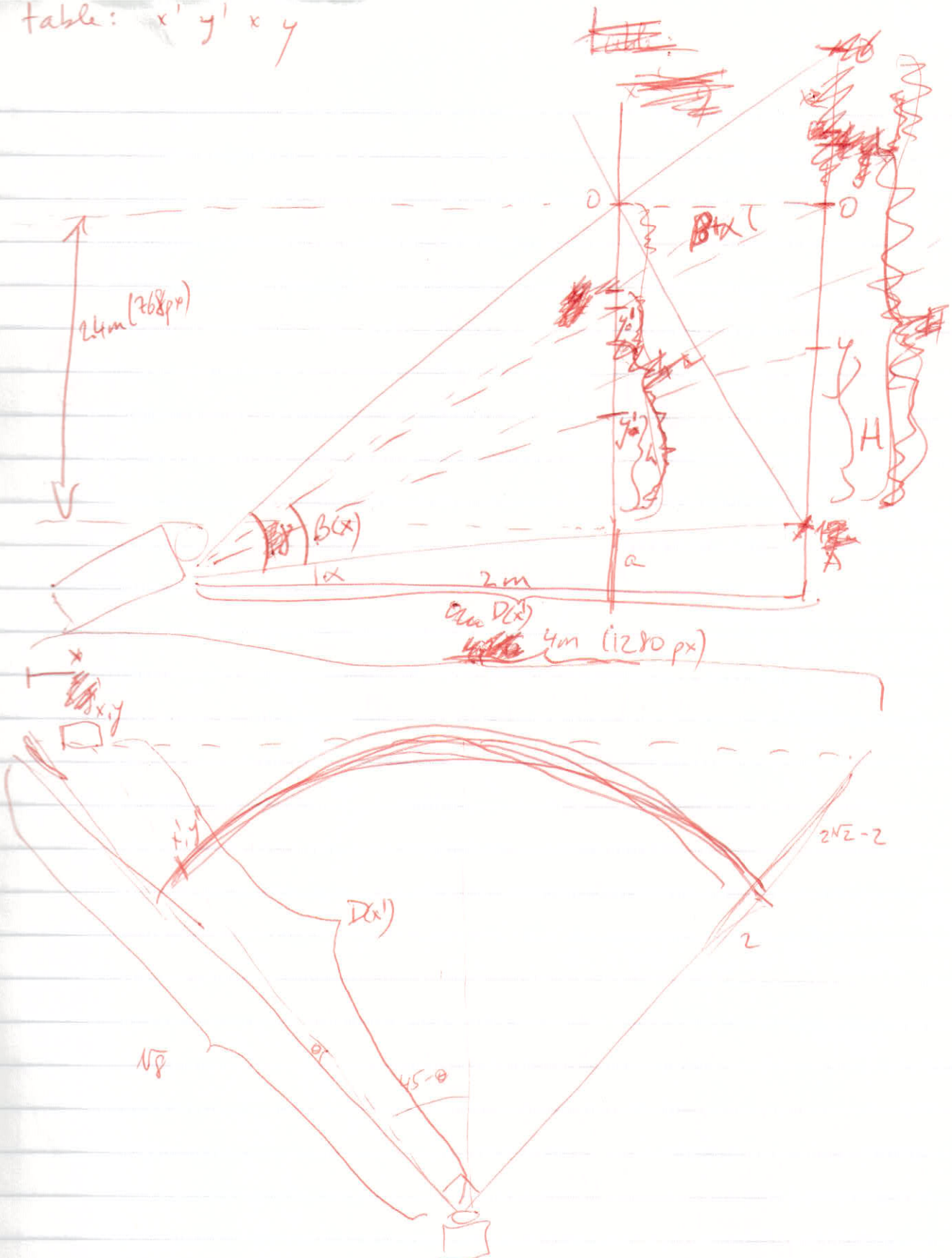
table: x' y' x y



in meters:

$$x' = \frac{\theta}{360} \cdot 2\pi \cdot 2 = \frac{\pi\theta}{90} \Rightarrow \theta = \frac{90x'}{\pi}$$

$$x^2 = D^2 + (\sqrt{8})^2 - 2\sqrt{8}D \cdot \cos\theta$$

$$x^2 = \left(\frac{2}{\cos(45-\theta)}\right)^2 + (\sqrt{8})^2 - \frac{2\sqrt{8}\cdot 2}{\cos(45-\theta)} \cdot \cos\theta$$

$$x^2 = 8 + \frac{8}{1+2\cos\theta\sin\theta} - \frac{16}{1+\tan\theta}$$

$$x = 2\sqrt{2\left(1 + \frac{1}{1+2\cos\theta\sin\theta} - \frac{2}{1+\tan\theta}\right)}$$

$$\cos(45-\theta) = \frac{2}{D}$$

$$\frac{\cos\theta+\sin\theta}{\sqrt{2}} = \frac{2}{D}$$

$$D = \frac{2\sqrt{2}}{\cos\theta+\sin\theta}$$

$$\tan\beta+\alpha = \frac{2.4+a}{D}$$

$$\tan\gamma+\alpha = \frac{2.4+a}{2}$$

$$\tan\beta+\alpha = \frac{y_0}{D-2}$$

$$y_0 = (D-2)\tan(\beta+\alpha)$$

$$\frac{y}{D} = \frac{y'-y_0'}{2}$$

$$y = \frac{D}{2}\left(y' - (D-2)\tan(\beta+\alpha)\right)$$

$$= \frac{D}{2}\left(y' - (D-2)\frac{(2.4+a)}{D}\right) =$$

in meters:

$$y = \frac{1}{2}\left(Dy' - (D-2)(2.4+a)\right)$$