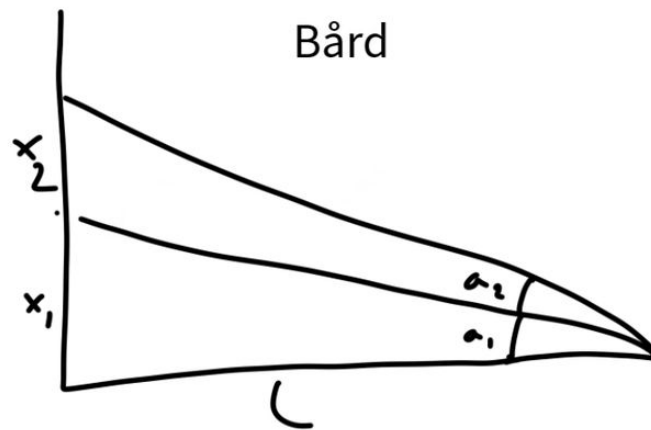


Assignment_03



Distance between two consecutive readings on the cylindrical object can be calculated using this formula:

$$X = \tan(\alpha_2) \times L - \tan(\alpha_1) \times L \\ = L \times (\tan(\alpha_2) - \tan(\alpha_1))$$

In our case where we calculate the distance between the top and second to top reading.

$$l = 10m \\ \alpha_1 = 18^\circ \\ \alpha_2 = 20^\circ$$

$$X = 10 \times (\tan(20^\circ) - \tan(18^\circ)) \\ X = 10 \times 0,03905 \\ X = 0,3905m \\ X = 39,05cm$$