

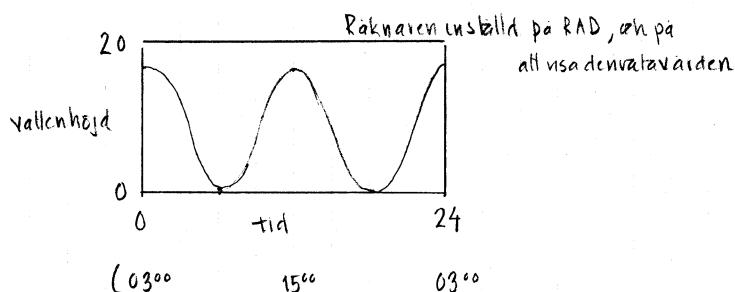
22

$$\pi \text{ rad} = 180^\circ, \text{ d\u00e5 \u00e4r } 1 \text{ rad} = \left(\frac{180}{\pi}\right)^\circ, \text{ \u00e4n } 1,4 \text{ rad} = 1,4 \cdot \frac{180^\circ}{\pi} \approx 80^\circ$$

23

$$y = 8,0 + 8,0 \cos 0,52x$$

↑ vattnets h\u00f6jd i m
↑ tid i timmar, r\u00e4knat fr\u00e5n 03.00



(a) R\u00e4knaren ger  $y_{\max} = 16$  \u00e4n  $y_{\min} = 0$

F5

G-Solv

F2

MAX

F5

S\u00f6kta h\u00f6jdskillnaden:  $y_{\max} - y_{\min} = (16 - 0) \text{ m} = \underline{16 \text{ m}}$  (Svar)

(b)  $x = 10$  d\u00e5 klockan \u00e4r 13.00. Vi ska best\u00e4mma  $y'(10)$ .

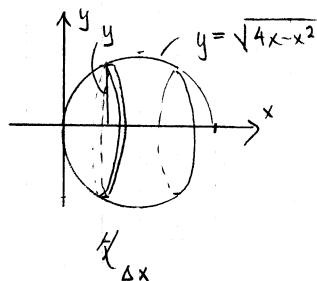
R\u00e4knaren ger  $y'(10) \approx 3,7$

F1

Trace

Svar: Med hastigheten  $3,7 \text{ m/h}$

24



Volymen av en tunn skiva

$$\Delta V = \pi y^2 \Delta x = \pi (\sqrt{4x - x^2})^2 \cdot \Delta x = \pi (4x - x^2) \Delta x$$

Hela volymen

$$V = \int_0^3 \pi (4x - x^2) dx \approx \left\{ \begin{array}{l} \text{R\u00e4knare} \\ \text{OPTN} \quad \text{F4} \quad \text{F4} \\ \text{CALC} \quad \text{Sdx} \end{array} \right\} \approx 28,3 \text{ v.e.}$$

Svar:  $28,3 \text{ v.e.}$