Cincápolis, 03 de outubro de 2023.

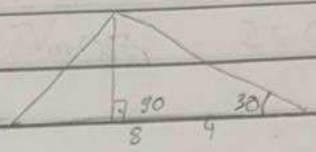
1) $\text{sen}(15) = \frac{1,5}{h} \Rightarrow 0,25 = \frac{1,5}{h}$ $\quad 1,5 = h \cdot 0,25$

$\frac{1,5}{0,25} = 6$

$\therefore \approx 6$ metros ou 5,8

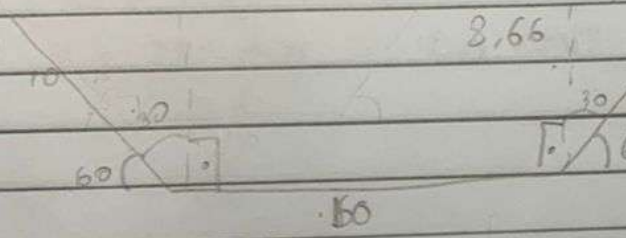
2) $\cos(30) = \frac{4}{h}$ $\quad 0,86 \cdot h = 4$

$h = \frac{4}{0,86} = 4,65$



$10 \cdot 4,65 = 46,5 \cdot 2 = 93,02$

3)



$\cos(30) = \frac{x}{10} \Rightarrow 0,86 = \frac{x}{10}$ $\quad x = 8,66$

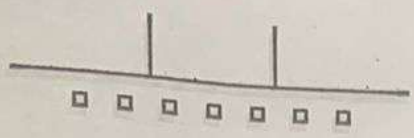
$\tan(30) = \frac{x}{8,66} = 0,57 = \frac{x}{8,66} \rightarrow x = 4,99$

área $\square$ = 86,60

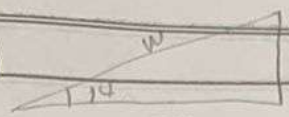
área $\triangle$ = 21,60 · 2 = 43,2

área T = 129,8 cm

$a = \frac{4,99 \cdot 8,66}{2} = \frac{43,21}{2} = 21,60$



4)



$\cos(14) = \frac{600}{h} = 0,97 = \frac{600}{h}$

$h = \frac{600}{0,97} = 618,55$

$\tan g(14) = \frac{x}{600} = 0,25 = \frac{x}{600}$

$x = 600 \cdot 0,25 = 150\,m + 270 = 420\,m.$

5) $c' = \frac{120 \cdot 3,14 \cdot 4}{180} = 8,37$

$c^2 = \frac{120 \cdot 3,14 \cdot 6}{180} = 12,56$

$c3 = \frac{120 \cdot 3,14 \cdot 6}{180} = 16,74$

6) a) $360 = 2\pi\ rad \Rightarrow x \cdot 360 = 45 \cdot 2\pi \Rightarrow x = \frac{89 \cdot 2\pi}{360} = 0,78\ rad$

$45 = x\ rad$

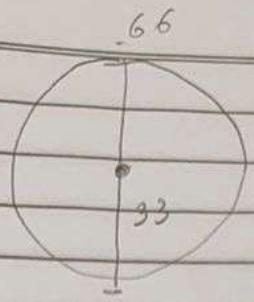
b) $360 = 2\pi \Rightarrow x \cdot 360 = 90 \cdot 2\pi \Rightarrow x = \frac{90 \cdot 2\pi}{360} = 1,57\ rad$

$90 = x$

c) $360 = 2\pi \quad x = \frac{1 \cdot 2\pi}{360} = 0,017$

$1 = x$

7) a)



$C = 2\pi R$

$C = 2 \cdot 3,14 \cdot 33 = 207,24$

$125 \cdot 207,24 = 25905$ cm

b) $63K = 6.300.000$ → $\frac{6300.000}{207,24} = 30.399,53$

8) $\frac{7,2}{360} = \frac{800}{x}$

$7,2x = 360.800$

$x = \frac{288.000}{7,2} = 40.000$

200
9
160
0

9) a) $\frac{200 \cdot \pi \cdot 8}{180} = 20,93$

b) $x = 4 \cdot (180/\pi) = 4 \cdot 57,32 = 229$

$\frac{229 \cdot \pi \cdot R}{180} = \frac{76}{1}$ → $\frac{719R}{180} = \frac{76}{1}$ → $719R = 13680$

$R = 19,02$