

$$T = 2\pi \sqrt{\frac{L}{g}} \quad , \quad T = 2\pi \sqrt{\frac{m}{k}}$$

$$T \text{ മാന്} , \quad \frac{L}{g} = \frac{m}{k}$$

മുൻപുള്ളിൽ

$$T_1, T_2 \Rightarrow$$

$$T_1 = 2\pi \sqrt{\frac{L_1}{g}}$$

$$T_2 = 2\pi \sqrt{\frac{L_2}{g}}$$

~~കൂടുതലുള്ള
ഗതികൾ~~

ഫ്രീ ഫ്ലോണ്



മുൻപുള്ളിലെ

L ഫലം

മാന് A

g_A

T_A

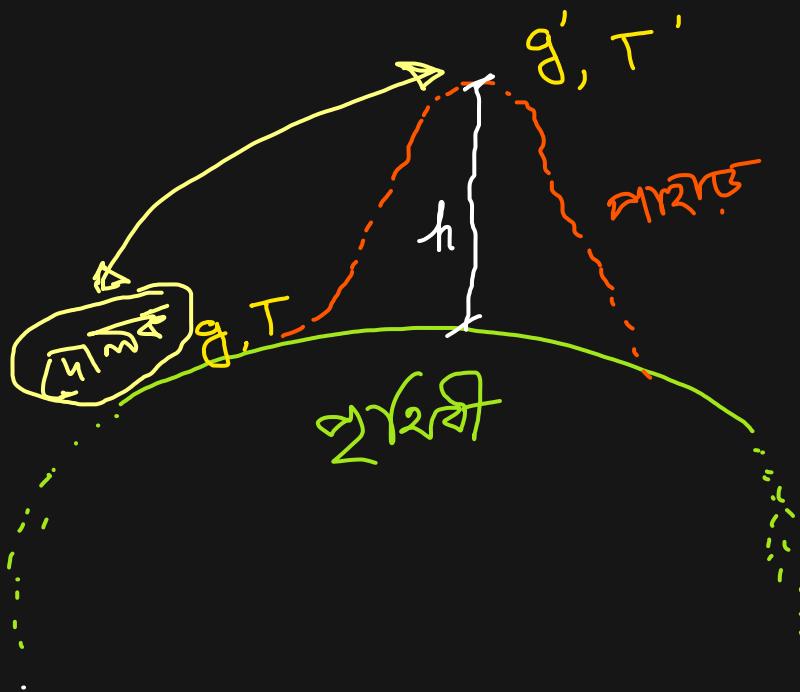
മാന് B

g_B

T_B

$$T_A = 2\pi \sqrt{\frac{L}{g_A}}, \quad T_B = 2\pi \sqrt{\frac{L}{g_B}}$$

পৃষ্ঠা



পৃষ্ঠা রয়ে h দূরত্বে g' এর ক্ষেত্রে কী?

$$g' = \frac{GM}{(R+h)^2}$$

$$\left. \begin{array}{l} h \Rightarrow পৃষ্ঠার ফর্ম \\ M \Rightarrow পৃষ্ঠার দুরত্ব \end{array} \right\}$$

সূতরাং, $g = \frac{GM}{R^2}$

$$\left. \begin{array}{l} R \Rightarrow n গুণে \\ h \Rightarrow দুবগ্রাম \end{array} \right\}$$

$$\frac{g}{g'} = \frac{(R+h)^2}{R^2}$$

$$\Rightarrow \frac{g}{g'} = \left(\frac{R+h}{R} \right)^2$$

$$\Rightarrow \frac{R+h}{R} = \sqrt{\frac{g}{g'}}$$

$$\Rightarrow R+h = \sqrt{\frac{g}{g'}} \cdot R$$

$$\Rightarrow h = \sqrt{\frac{g}{g'}} \cdot R - R$$

$$\boxed{h = \left(\sqrt{\frac{g}{g'}} - 1\right) R}$$

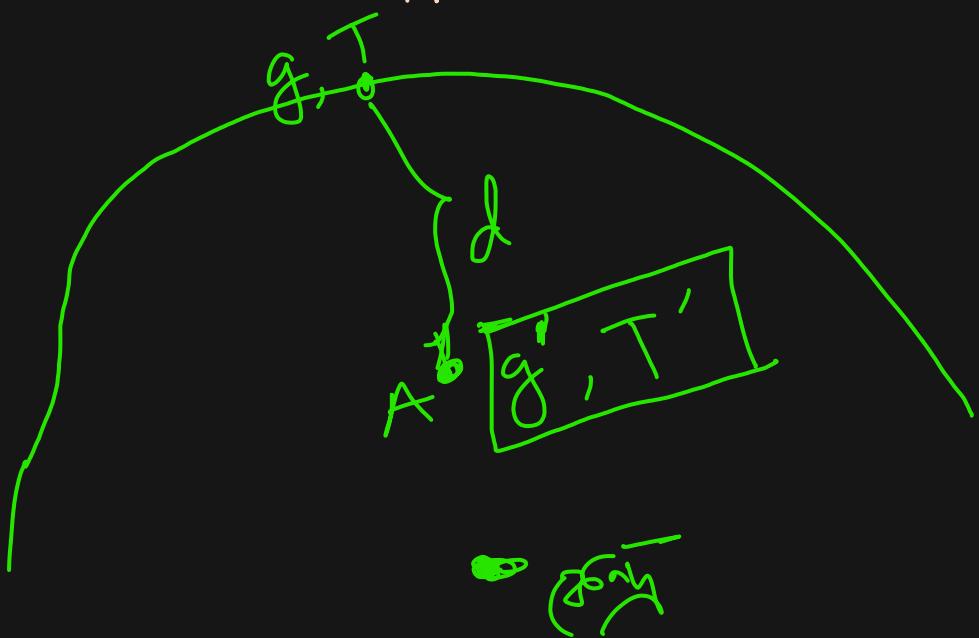
$$\therefore T = 2\pi \sqrt{\frac{L}{g}}, \quad T' = 2\pi \sqrt{\frac{L}{g'}}$$

$$\Rightarrow \frac{T}{T'} = \sqrt{\frac{g'}{g}}$$

$$\therefore \sqrt{\frac{g}{g'}} = \frac{T'}{T}$$

$$\therefore h = \left(\frac{T'}{T} - 1 \right) R$$

तुलना दें कि एक वर्ष में गतिशीलता,



$$g' = g \left(1 - \frac{d}{R} \right)$$

$$g' = \frac{GM'}{(R-d)^2}$$

\sqrt{m} $g, g' \checkmark$

$$\frac{T'}{T} = \frac{2\pi \sqrt{\frac{2}{g'}}}{2\pi \sqrt{\frac{2}{g}}}$$

$$\therefore \frac{T'}{T} = \sqrt{\frac{g}{g'}}$$

$g, g' \Rightarrow \bigcirc \times, T, T' \checkmark$

fact

$$g' = g \left(1 - \frac{d}{R}\right)$$

$$\frac{g'}{g} = 1 - \frac{d}{R}$$

$$\frac{d}{R} = 1 - \frac{g'}{g}$$

$$\Rightarrow d = \left(1 - \frac{g'}{g}\right) R$$

$$d = \left[1 - \left(\frac{T}{T'} \right)^2 \right] R$$

$$\frac{T'}{T} = \sqrt{\frac{g}{g'}}$$

$$\Rightarrow \left(\frac{T'}{T} \right)^2 = \frac{g}{g'}$$

$$\therefore \frac{g'}{g} = \left(\frac{T}{T'} \right)^2$$

निरुद्ध घूर्णन

\hookrightarrow घूर्णन का समय, $T = 2s$.

$g = 9.81 \text{ m/s}^2$, अब त्रिकोणीय = ?

$$T = 2\pi \sqrt{\frac{L}{g}}$$

$$\Rightarrow 2 = 2\pi \sqrt{\frac{L}{g}}$$

$$\Rightarrow l = \pi \sqrt{v/g}$$

$$\Rightarrow l = \pi^2 \cdot \frac{v}{g}$$

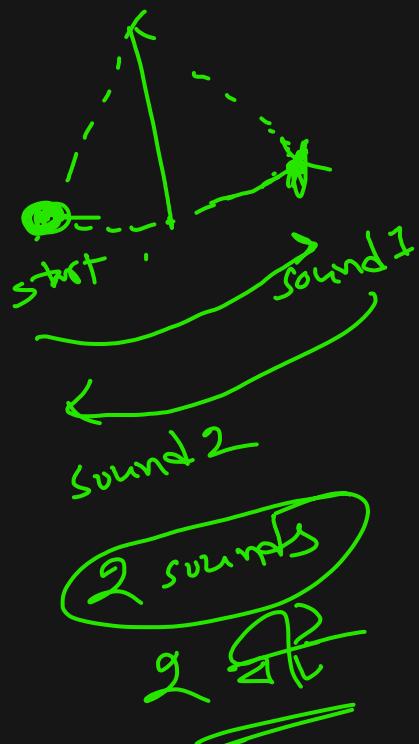
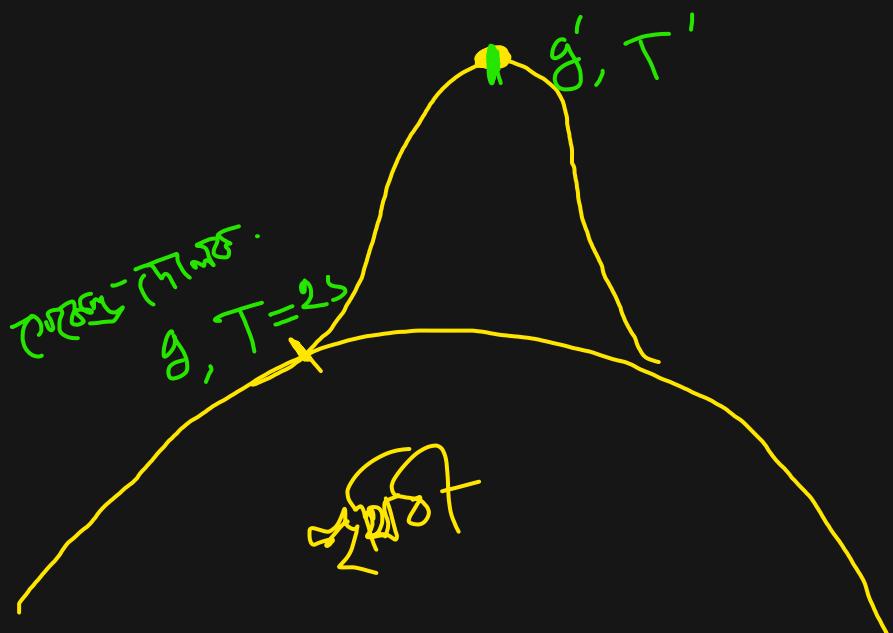
$$v = \frac{g}{\pi^2} = \frac{9.81}{(3.1416)^2}$$

$$= 0.993 \text{ m}$$

$$= 99.3 \text{ cm}$$

মুক্তি মিলে $\Rightarrow T = 2s$

$$\therefore 1s - \leftarrow \frac{2\pi}{gT} / \text{বিদ্যুত মিল} = 1 \text{ ft}$$



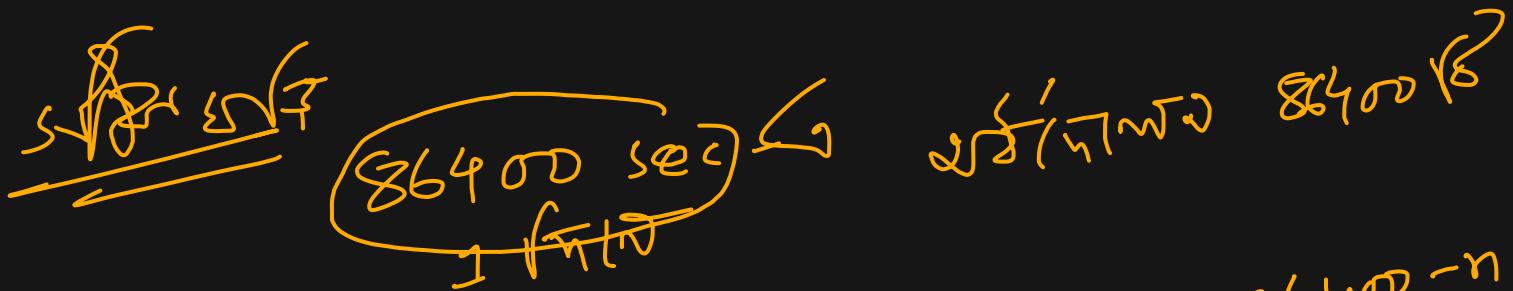
$\Delta t, 2 \text{ ft}$
২ ফুট দূরত্বে

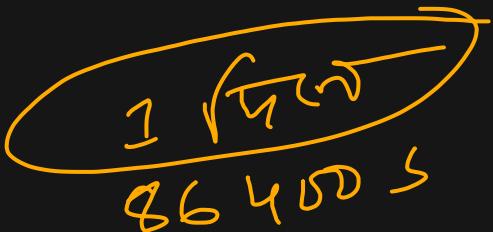
$$\begin{aligned}
 1 \text{ day} &= 24 \text{ hrs} = 24 \times 3600 \text{ sec} \\
 &= \boxed{86,400} \text{ sec}
 \end{aligned}$$

କାହାରେ, କ୍ଷୟାତିର ଏହିପରିମାଣ କିମ୍ବା କିମ୍ବା

$$1 \text{ day} = \boxed{86400 - n} \text{ sec}$$

ଏହିପରିମାଣ କିମ୍ବା $86400 - n$ କିମ୍ବା
 [ଏହିପରିମାଣ କିମ୍ବା]



"


$\frac{1}{R}$ මෙහි

$(86400 - n)$ සියලුම පානව (න්)

1 එකිනු පර
86400 sec

$\therefore \frac{1}{R}$

" "

$$\frac{86400}{86400 - n}$$

$\therefore \boxed{\frac{2}{\sqrt{R}} \text{ යිකැත්තුවයි}}$

$$\frac{2 \times 86400}{86400 - n}$$

↳ පානවගාස
 T'

$$\therefore T' = \frac{2 \times 86400}{86400 - n}$$

මැං කරුණ, 1 අදාළ නො නැව යොමු
න සෙසු ප්‍රති

වත්, ගොන් න ප්‍රතික්‍රිත දෙය

එක අවධානුව

$$1 \text{ day} = 86400 + n \text{ ප්‍රතික්‍රිත}$$

$\therefore \frac{1 \text{ අදාළ}}{86400 \text{ sec}} \text{ නො නැව } (86400 + n) \text{ ප්‍රතික්‍රිත}$

$\therefore 86400 + n \text{ නො නැව } = \frac{86400}{\text{sec}}$

$1 \sqrt{\beta} = \frac{86400}{86400 + n}$

$\therefore 2 \sqrt{\beta} \text{ නො නැව } = \frac{2 \times 86400}{86400 + n}$

$$\therefore \text{({ଗୀତର ଦିନେ}), T' = \frac{2 \times 86400}{86400 + n}$$

୧ ଦିନ

n ମହିନ୍ତ ଶୀଘ୍ର,
ହାତୁ

$$T' = \frac{2 \times 86400}{86400 - n}$$

୧ ଦିନ

n " ଦୂର
ପଦକାଳୀ

$$T' = \frac{2 \times 86400}{86400 + n}$$

୧ ସପ୍ତିମୀ

n " ଶୀଘ୍ର,

$$T' = \frac{2 \times 3600}{3600 - n}$$

୧ ଏକାବ୍ଦୀ

n " ଦୂର

$$T' = \frac{2 \times 3600}{3600 + n}$$

୧ ମିନିଟ୍

n " ଶୀଘ୍ର,

$$T' = \frac{2 \times 60}{60 - n}$$

୧ ସତ୍ତାବ୍ଦୀ

n ମହିନ୍ତ ଶୀଘ୍ର,

$$T' = \frac{2 \times 365 \times 86400}{365 \times 86400 - n}$$

ଲେଖନ ଦାଖଲ
୧ ଏତ୍ରେ ନ ମିଳି ହାବି ।

$$T' = \frac{2 \times (365 \times 86400)}{(365 \times 86400) - n \times 60}$$

ହାବି ହାବି / ଶୀର୍ଷ ଟଙ୍କା → ଦାଖଲାରେ ରାତି → ସ୍ପାର୍ଟ୍ରି ଶୀର୍ଷ ଟଙ୍କା

ହାବି ଲାଭ ଟଙ୍କା → ଦାଖଲାରେ କରିବାରୁ → ସାଧି ଲାଭ ଟଙ୍କା

