

NÅR AI ER NØGLEN, MEN **UDDANNELSE** ER MÅLET



AGENDA

Det gode

Det dårlige

Det rigtig slemme

The background features a dense collage of handwritten physics and engineering notes. Key elements include:

- Mechanics:** Free-body diagrams of masses on inclined planes and pulleys, force vectors, and kinematic equations like $v^2 = 2gh$ and $\lambda_1 = \frac{u_1}{f}$.
- Thermodynamics:** A graph showing two curves labeled 1000K and 2450K, with equations for radiation pressure $P_r = \frac{1}{3} \epsilon_0 A T^4$ and energy change $\Delta P = \epsilon_0 A (T^4 - T_0^4)$.
- Electromagnetism:** Diagrams of a spring-mass system, a circuit with a resistor and capacitor, and a magnetic field diagram with $\oint \mathbf{B} \cdot d\mathbf{l} = \mu_0 I$.
- Wave Phenomena:** A graph of a wave with amplitude A and phase ϕ , and a diagram of a double-slit interference pattern.
- Mathematics:** A Gaussian distribution curve with σ and μ , and a graph of a function $\psi(x,0) = A \exp(-\frac{x^2}{4\sigma^2}) e^{i k x}$.
- Other:** A diagram of a sphere with forces F_r and F_t , and a graph of a function $\psi(x,0) = A \exp(-\frac{x^2}{4\sigma^2}) e^{i k x}$.

DeiC konference 2023

Providing secure digital infrastructure for research and education

Bjarke Rahbek
Projektleder, AU

DeiC

Det gode

$F_{R, \text{max}} = -m_1 u \cdot mg \cos \theta = 0$
 $= -mg \sin \theta \cdot \text{max}$
 $v_e = \sqrt{2gl}$
 $E_{\text{mech}, E} = E_{\text{mech}, A}$
 $\frac{1}{2} m v_e^2 + m g y_e = \frac{1}{2} m v_A^2 + m g y_A$
 $\frac{1}{2} m v_e^2 = m g h$
 $h = l - l \cos \theta_0$
 $\frac{1}{2} m v_e^2 = m g l (1 - \cos \theta_0)$

$\psi = 0, d = n \frac{\lambda}{2}, n = 1, 2, 3, \dots$
 $E = \frac{1}{2} m v^2 = \frac{p^2}{2m}, E_n = \frac{p_n^2}{2m}$
 $E_3 = 9E_1$
 $E_2 = 4E_1$
 $E_1 = E_1$
 $E_n = n^2 \frac{h^2}{8md^2} = n^2 E_1$
 $E_1 = \frac{h^2}{8md^2}$
 $n v = |E_n - E_1|$

$|\mathcal{E}| = \frac{1}{4\pi\epsilon_0} \frac{dq}{r^2}$
 $d\mathcal{E}_y = \frac{2}{4\pi\epsilon_0} \frac{dx}{r^3}$
 $d\mathcal{E}_y = \frac{2}{4\pi\epsilon_0} \frac{y dx}{r^3}$

$\Psi(x, 0) = A \exp(-\frac{x^2}{4\sigma_x^2}) e^{i k x}$
 $|\Psi|^2 = A^2 \exp(-\frac{x^2}{2\sigma_x^2})$
 $\beta(h) = \frac{\sqrt{x}}{\sqrt{\pi}} e^{-\sigma_x^2 (h-h_0)^2}$
 $\Re(\Psi) = A \cos(k_0 x - \omega t)$
 $|\mathcal{E}| = \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$
 $= \frac{m v^2}{r}$
 $E_{\text{pot}} = -\frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$
 $E_{\text{kin}} = \frac{1}{2} m v^2$
 $= \frac{1}{2} \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$
 $E_{\text{pot}} = -2E_{\text{kin}}$
 $E_{\text{pot}} = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r}$
 $\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$

$v(x) = A \sin(2\pi \frac{x}{\lambda} + \delta)$
 $y(x, t) = A \sin(kx - \omega t)$
 $2\pi v = k \omega = \frac{2\pi}{\lambda} v$
 $U = F_e r$
 $\lambda_{\text{max}} = \frac{2.99 \text{ mm} \cdot \text{K}}{T}$
 $P_e = e \sigma A T^4$
 $P_a = e \sigma A T_0^4$
 $\Delta P = e \sigma A (T^4 - T_0^4)$

$F_{\text{net}} = \frac{mg}{dy}$
 $F_e = F \sin \phi$
 $v = v \sin \phi$
 $v^2 = v_0^2 + r \omega^2 d$
 $U_{A, \text{eff}} = X_C \cdot I_{\text{eff}}$
 $z = \sqrt{R^2 + X_C^2}$
 $U_{A, \text{eff}} = X_C I_{\text{eff}} = \frac{X_C U_{\text{eff}}}{z}$
 $= \frac{X_C U_{\text{eff}}}{\sqrt{R^2 + X_C^2}}$

$\Psi(x, 0) = A \exp(-\frac{x^2}{4\sigma_x^2}) e^{i k x}$
 $|\Psi|^2 = A^2 \exp(-\frac{x^2}{2\sigma_x^2})$
 $\beta(h) = \frac{\sqrt{x}}{\sqrt{\pi}} e^{-\sigma_x^2 (h-h_0)^2}$
 $\Re(\Psi) = A \cos(k_0 x - \omega t)$
 $|\mathcal{E}| = \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$
 $= \frac{m v^2}{r}$
 $E_{\text{pot}} = -\frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$
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 $E_{\text{pot}} = -2E_{\text{kin}}$
 $E_{\text{pot}} = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r}$
 $\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$

$F_2 = \frac{F_L}{2u}$
 $E = F_2 \cdot s$
 $= \frac{F_L}{u} \cdot u \cdot h$
 $F_L = F_L \cdot h$
 $= m \cdot g \cdot h$
 $s = u \cdot h$

$\oint \mathcal{E} \cdot d\mathbf{l} = \frac{1}{\epsilon_0} q_i$
 $\oint \mathcal{B} \cdot d\mathbf{l} = \mu_0 (J + J_v)$
 $\mathcal{B} = \mathcal{B}_2 + \mu_0 \mathcal{H} = \mathcal{B}_2 (1 + \chi_{\text{mag}})$
 $E = c \mathcal{B}$
 $\mathcal{B} = \mu_0 \mathcal{H} = \mu_0 J$
 $m_1 v_{1A} + m_2 v_{2A}$
 $\frac{1}{2} m_1 v_{1e}^2 + \frac{1}{2} m_2 v_{2e}^2$

$v_p = \sqrt{\frac{2\Gamma m_e}{r_e}} = \sqrt{2gr_e}$
 $E_2 > 9$

FOTO



You

Kan du lave et billede af en rapport. Billedet skal have helt hvid baggrund, og rapporten skal være en printet rapport, der ses lidt i perspektiv, måske med en smule drop-shadow. Teksten på rapporten skal ikke være tydelig. Titlen på rapporten må gerne være "Semester projekt", hvis muligt.



ChatGPT



Her er billederne af rapporten med titlen "Semester projekt" på en helt hvid baggrund.

DEN GODE RAPPORTSTRUKTUR



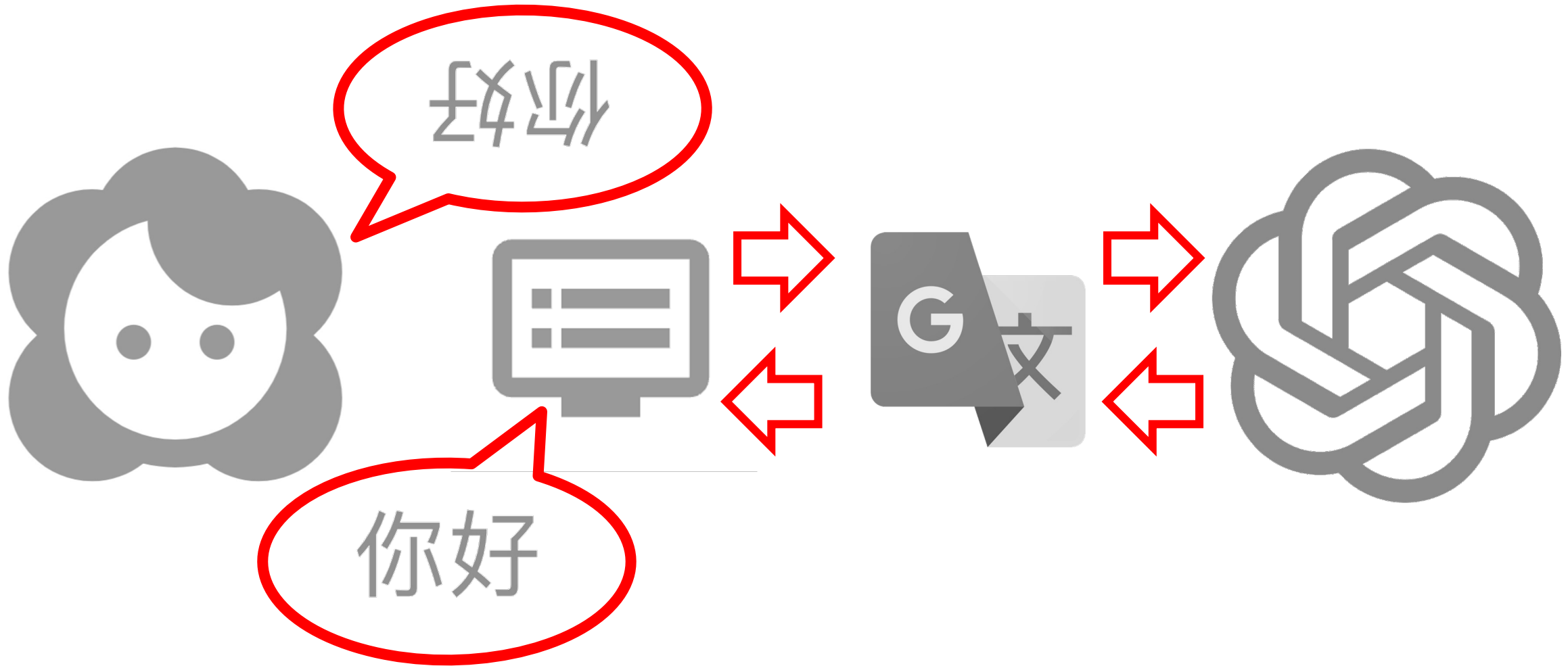
DEN DÅRLIGE PROBLEMFORMULERING



DEN SVÆRE START



DEN SVÆRE START



VARIANTER AF SAMME SPØRGSMÅL



GÆT EN DIAGNOSE



PEER-FEEDBACK



SHITTY FIRST DRAFT

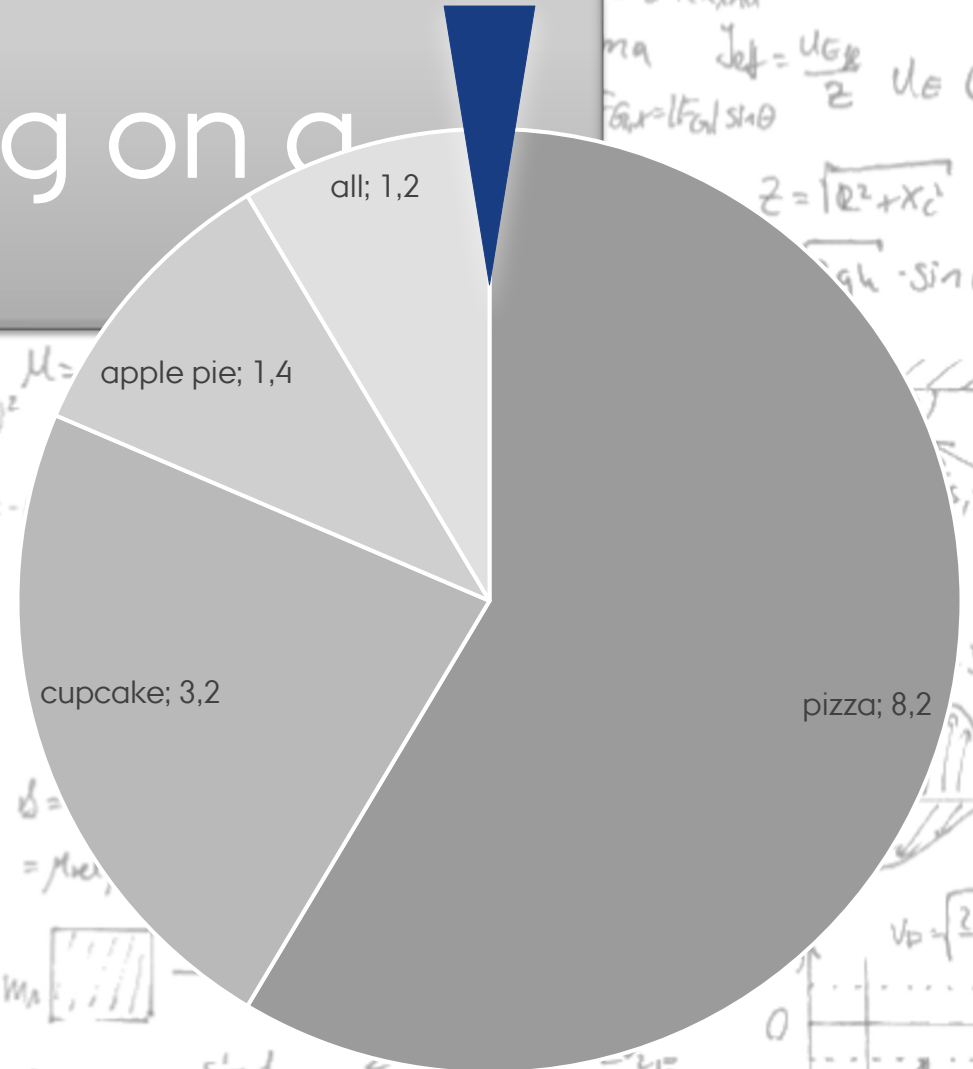


BAD EXAMPLES

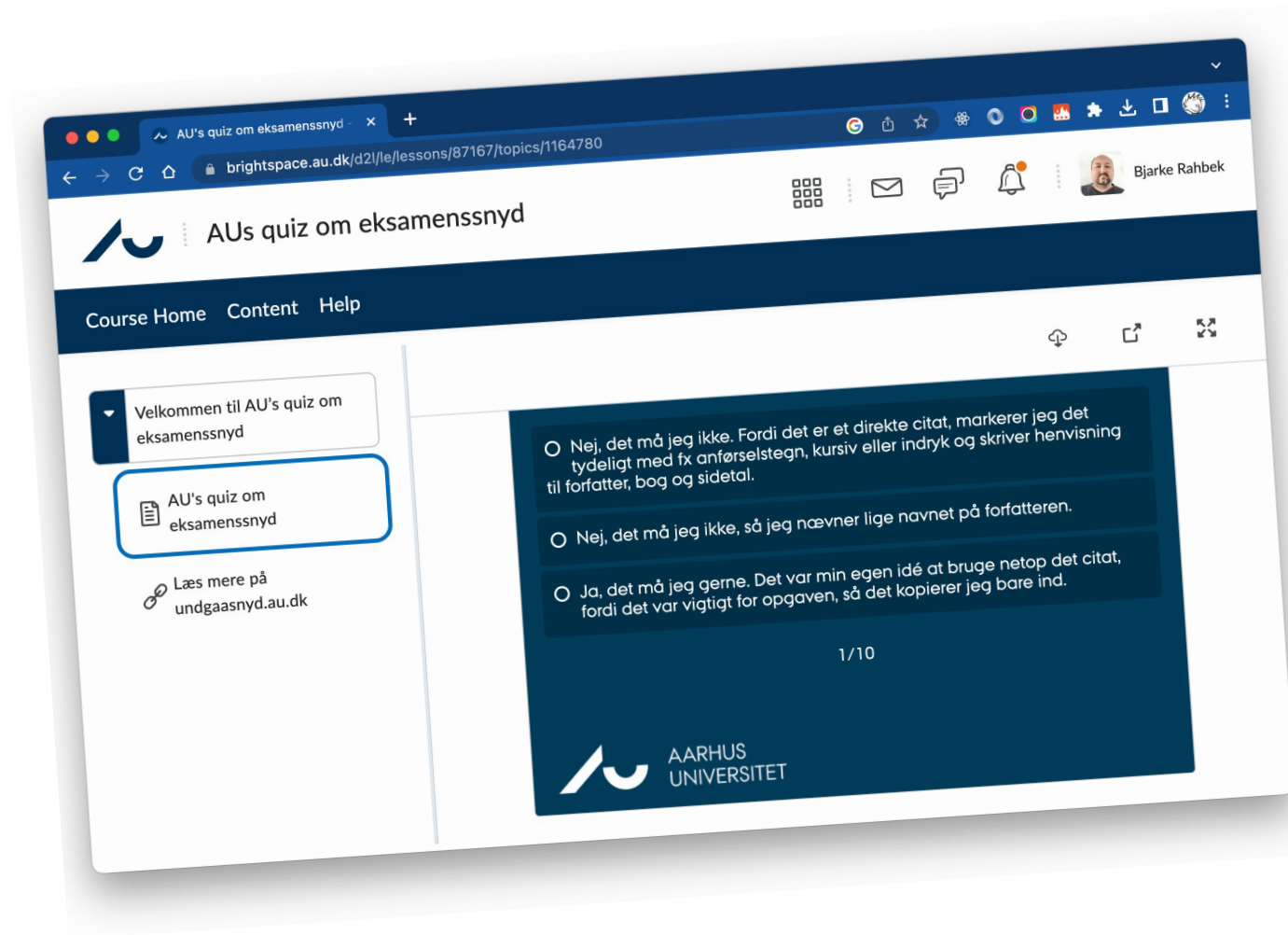


LARGE LANGUAGE MODELS

My favorite topping on a



REFLEKSIONSSPØRGSMÅL



Det dårlige

The background features a dense collage of physics and mathematics content:

- Mechanics:** Free-body diagrams for masses m_1 and m_2 , a pulley system, a spring-mass system, and a circular object with forces F_r and F_t . Equations include $F_{r, \max} = -m_1 u \sin \theta$, $v = \sqrt{2gl}$, $\frac{1}{2}mv^2 + mgy = \frac{1}{2}mv^2 + mgy_A$, $\frac{1}{2}mv^2 = mgh$, $h = l - l \cos \theta$, $\frac{1}{2}mv^2 = mgh$, $U = F_e r = F_r \sin \theta = F_l$, $v = v_0 + r \omega$, $U_{A, CH} = X_C \frac{dU}{dt}$, $F_{e, x} + F_{a, x} = ma$, $F_{a, x} = k |x| \sin \theta = m a \sin \theta = g \sin \theta$, $z = \sqrt{R^2 + X_C^2}$, $U_{A, CH} = X_C \frac{dU}{dt} = \frac{X_C U \omega \cos \theta}{z}$, $v_s = \sqrt{2gh} \cdot \sin \theta$, $\frac{d}{dt} \int \mathbf{B} \cdot d\mathbf{A} = -\frac{d}{dt} \int \mathbf{E}_n \cdot d\mathbf{A}$, $\oint \mathbf{E}_n \cdot d\mathbf{A} = \frac{1}{\epsilon_0} q_i$, $\oint \mathbf{B}_n \cdot d\mathbf{A} = 0$, $\mathbf{B} = \mathbf{B}_2 + \mu_0 \mathbf{J} = \mathbf{B}_2 (1 + \mu_0 \mathbf{J})$, $E = cB$, $\mu = \mu_0 \mu_r = \mu_0 n^2$, $m_1 v_{1A} + m_2 v_{2A}$, $\frac{1}{2} m_1 v_{1A}^2 + \frac{1}{2} m_2 v_{2A}^2$.
- Electromagnetism:** Electric field diagrams, a circuit with a resistor R and capacitor C , and a magnetic field diagram. Equations include $E_3 = 3E_1$, $E_2 = 4E_1$, E_1 , $E_n = u^2 \frac{k^2}{8md^2} = u^2 E_1$, $E_1 = \frac{u^2}{8md^2}$, $nv = |E_0 - E_n|$, $|\mathbf{E}| = \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$, $= \frac{mv^2}{r}$, $E_{\text{pot}} = -\frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$, $E_{\text{kin}} = \frac{1}{2}mv^2 = \frac{1}{2} \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$, $E_{\text{pot}} = -2E_{\text{kin}}$, $E_{\text{pot}} = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r}$, $\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$, $s = u \cdot h$, $U_{\#} = -\int \mathbf{J} \cdot \left(\frac{\mathbf{A}}{V}\right) d\mathbf{e}$, $U_{\#} = E_{\text{pot}} = \int \mathbf{v} \cdot d\mathbf{B}$, $E_2 > 9$.
- Optics:** Interference patterns and a graph of λ vs λ . Equations include $\psi = 0$, $d = n \frac{\lambda}{2}$, $n = 1, 2, 3$, $E = \frac{1}{2}mv^2 = \frac{p^2}{2m}$, $E_n = \frac{u^2}{8md^2} = u^2 E_1$, $E_1 = \frac{u^2}{8md^2}$, $nv = |E_0 - E_n|$, $|\mathbf{E}| = \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$, $= \frac{mv^2}{r}$, $E_{\text{pot}} = -\frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$, $E_{\text{kin}} = \frac{1}{2}mv^2 = \frac{1}{2} \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$, $E_{\text{pot}} = -2E_{\text{kin}}$, $E_{\text{pot}} = \frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r}$, $\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$, $s = u \cdot h$, $U_{\#} = -\int \mathbf{J} \cdot \left(\frac{\mathbf{A}}{V}\right) d\mathbf{e}$, $U_{\#} = E_{\text{pot}} = \int \mathbf{v} \cdot d\mathbf{B}$, $E_2 > 9$.
- Mathematics:** Graphs of λ vs λ , $\psi(x) = A \sin(2\pi \frac{x}{\lambda} + \delta)$, $y(x,t) = A \sin(kx - \omega t)$, $2\pi v = k \omega = \frac{2\pi}{\lambda} v$, $U = F_e r$, $\lambda_{\text{max}} = \frac{2.99 \text{ mm} \cdot \text{K}}{T}$, $P_e = e \sigma A T^4$, $P_a = e \sigma A T_0^4$, $\Delta P = e \sigma A (T^4 - T_0^4)$, $\lambda_1 = \frac{u_1}{f}$, $\lambda_2 = \frac{u_2}{f}$, $\sin \theta = \frac{\lambda_1}{\lambda_2}$, $\frac{1}{s} + \frac{1}{s'} = \frac{1}{f}$, $\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$, $s = u \cdot h$, $U_{\#} = -\int \mathbf{J} \cdot \left(\frac{\mathbf{A}}{V}\right) d\mathbf{e}$, $U_{\#} = E_{\text{pot}} = \int \mathbf{v} \cdot d\mathbf{B}$, $E_2 > 9$.

CITAT

Det er teknologi som potentielt truer vores forretningsmodel, som er baseret på **at tekst er en proxy for unikt selvstændigt læringsoutput**, men ved at bruge teknologien produktivt, kan den forbedre læringen og automatisere rutiner.

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Prodekan for uddannelse
Aarhus BSS



BIAS OG KRITISK TÆNKNING



Prompt: European people at work



Prompt: African people at work

Service: [ClipDrop - Stable Diffusion](#)

Det rigtig slemme

$\tan \theta_{\max} = \mu$
 $F_{R, \max} = \mu R, \mu mg \cos \theta = 0$
 $= -mg \sin \theta_{\max}$
 $v_e = \sqrt{2gl}$
 $\psi = 0, d = n \frac{\lambda}{2}; n = 1, 2, 3, \dots$
 $E = \frac{1}{2} m v^2 = \frac{p^2}{2m}; E_n = \frac{p_n^2}{2m}$
 $E_3 = 9E_1$
 $E_2 = 4E_1$
 $E_1 = E_1$
 $E_n = n^2 \frac{h^2}{8md^2} = n^2 E_1$
 $E_1 = \frac{h^2}{8md^2}$
 $n v = |E_n - E_1|$

F_s
 $l \cos \theta_0 = l - h$
 $h = l - l \cos \theta_0$
 $\frac{1}{2} m v_e^2 = mgh$
 v_1
 mag

$\lambda_{\max} = \frac{2,99 \text{ mm} \cdot \text{K}}{T}$
 $P_e = e \sigma A T^4$
 $P_a = e \sigma A T_0^4$
 $\Delta P = e \sigma A (T^4 - T_0^4)$

$y(x) = A \sin(2\pi \frac{x}{\lambda} + \delta)$
 $y(x,t) = A \sin(kx - \omega t)$
 $2\pi v = k \omega = \frac{2\pi}{\lambda} v$
 $\lambda_{\max} = \frac{2,99 \text{ mm} \cdot \text{K}}{T}$
 $P_e = e \sigma A T^4$
 $P_a = e \sigma A T_0^4$
 $\Delta P = e \sigma A (T^4 - T_0^4)$

$F_{\text{net}} = \frac{mg}{\sin \phi}$
 $F_e = F \sin \phi$
 $v = v_0 \sin \phi$
 $v_e = v_0^2 \frac{r_{\text{axel}}}{r}$
 $U_{A, \text{eff}} = X_C \cdot I_{\text{eff}}$
 $\Sigma F_y = -k_f(y + y_0) + m \frac{dy}{dt}$
 $\Sigma F_y = -k_f y'$
 $-k_f y' = m \frac{d^2 y}{dt^2}$
 $E_{\text{pot}} = -\int k_f y' dy'$
 $v_{\text{max}} = \sqrt{\frac{2 E_{\text{pot}}}{m}}$

$\frac{1}{2} \rho F (v^2 - v_0^2) = (\rho v - \rho v_0) g_0 h$
 $\Sigma F_y = -k_f(y + y_0) + m \frac{dy}{dt}$
 $\Sigma F_y = -k_f y'$
 $-k_f y' = m \frac{d^2 y}{dt^2}$
 $E_{\text{pot}} = -\int k_f y' dy'$
 $v_{\text{max}} = \sqrt{\frac{2 E_{\text{pot}}}{m}}$

$U_{A, \text{eff}} = X_C \cdot I_{\text{eff}}$
 $U_{A, \text{eff}} = X_C \cdot I_{\text{eff}} = \frac{X_C U_{\text{eff}}}{Z}$
 $= \frac{X_C U_{\text{eff}}}{\sqrt{R^2 + X_C^2}}$

$\Phi E dl = -\frac{d}{dt} \int B_n dA = -\frac{d}{dt} \int_0^a B_n da$
 $\nabla \cdot B = 0$
 $\oint E_n dA = \frac{1}{\epsilon_0} q_i$
 $\oint_A B_n dA = 0$
 $B = B_2 + \mu_0 J = B_2 (1 + \lambda_{\text{mag}})$
 $E = cB$
 $\lambda = \mu_0 \mu_0 h J = \mu n J$
 $m_1 v_{1A} + m_2 v_{2A}$
 $m_1 v_{1e} + m_2 v_{2e}$
 $\frac{1}{2} m_1 v_{1e}^2 + \frac{1}{2} m_2 v_{2e}^2$

$\Psi(x,0) = A \exp(-\frac{x^2}{4\sigma^2}) e^{i k x}$
 $|\Psi|^2 = A^2 \exp(-\frac{x^2}{2\sigma^2})$
 $\beta(h) = \frac{\sqrt{x}}{\sqrt{\pi}} e^{-\sigma^2 x^2 (h-h_0)^2}$
 $\text{Re}(\Psi) = A \cos(k_0 x - \omega t)$
 $|E| = \frac{1}{4\pi \epsilon_0} \frac{ze^2}{r}$
 $= \frac{mv^2}{r}$
 $E_{\text{kin}} = \frac{1}{2} m v^2$
 $= \frac{1}{2} \frac{1}{4\pi \epsilon_0} \frac{ze^2}{r}$
 $E_{\text{pot}} = -2 E_{\text{kin}}$
 $E_{\text{pot}} = -\frac{1}{4\pi \epsilon_0} \frac{ze^2}{r}$
 $\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$

$F_2 = \frac{F_L}{2n}$
 $E = F_2 \cdot s$
 $= \frac{F_L}{u} \cdot u \cdot h$
 $F_L = F_L \cdot h$
 $= m \cdot g \cdot h$
 $s = u \cdot h$

$F_2 = 33\% FL$
 $E = F_2 \cdot s$
 $= \frac{F_L}{u} \cdot u \cdot h$
 $F_L = F_L \cdot h$
 $= m \cdot g \cdot h$
 $s = u \cdot h$

v_1
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OVERTAGER DE HELE VERDEN...?

GPT-4



Are you sure about that?



I apologize for the oversight. Let's reconsider the problem:



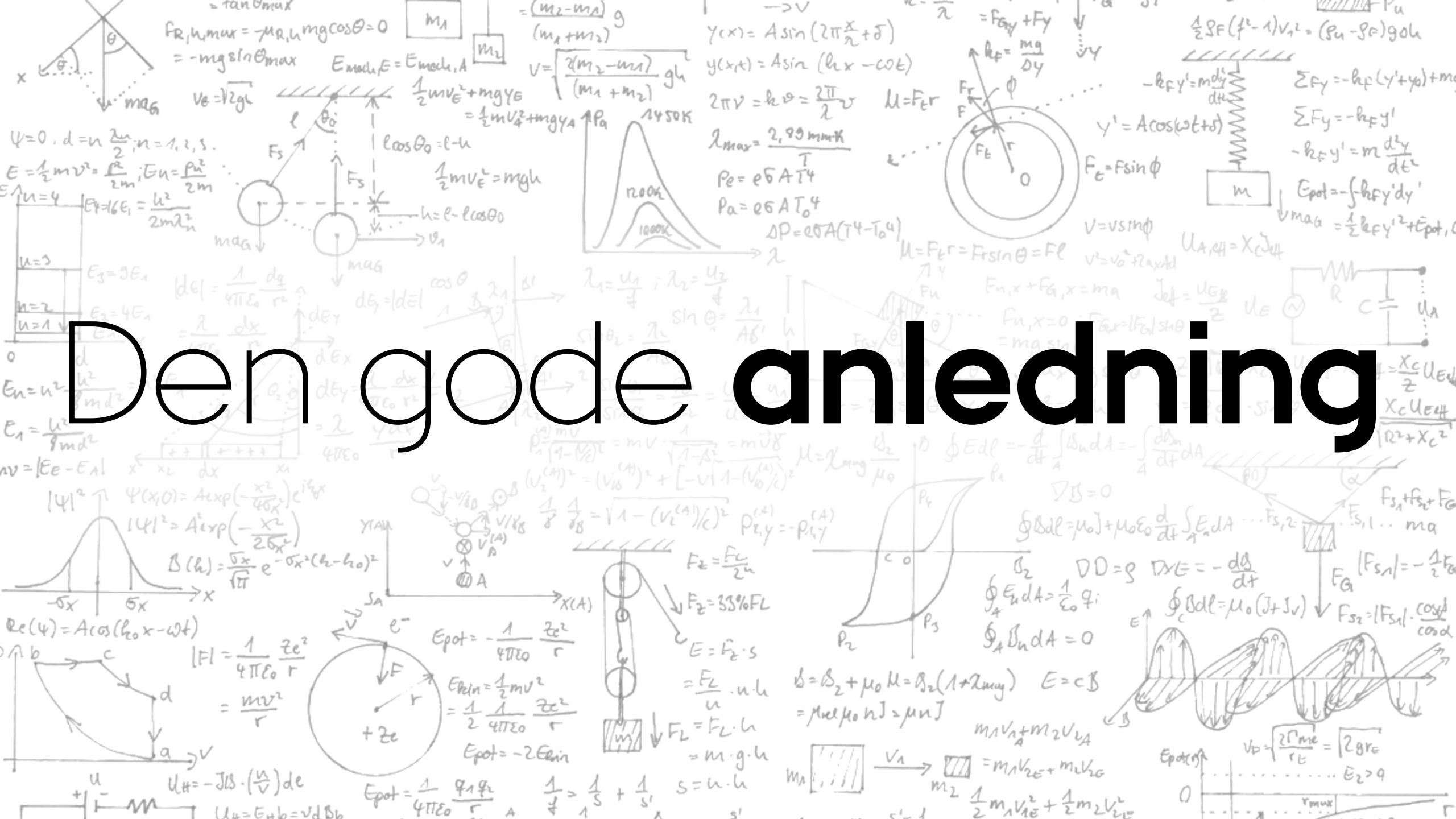
If 3 towels take 3 hours to dry when hung up simultaneously, then 9 towels, hung up at the same time under the same conditions, would still take 3 hours to dry.

The drying time is independent of the number of towels hung up, as long as there's sufficient space for air circulation around each towel.

So, the correct answer is 3 hours for 9 towels.

SIGER DU TAK...?





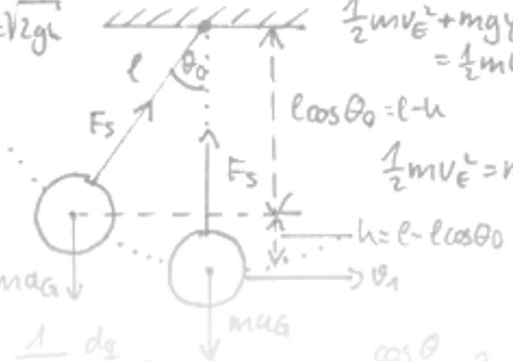
Den gode anledning

$$F_{R, \text{max}} = -\mu_{R, \text{max}} mg \cos \theta = 0$$

$$= -mg \sin \theta_{\text{max}}$$

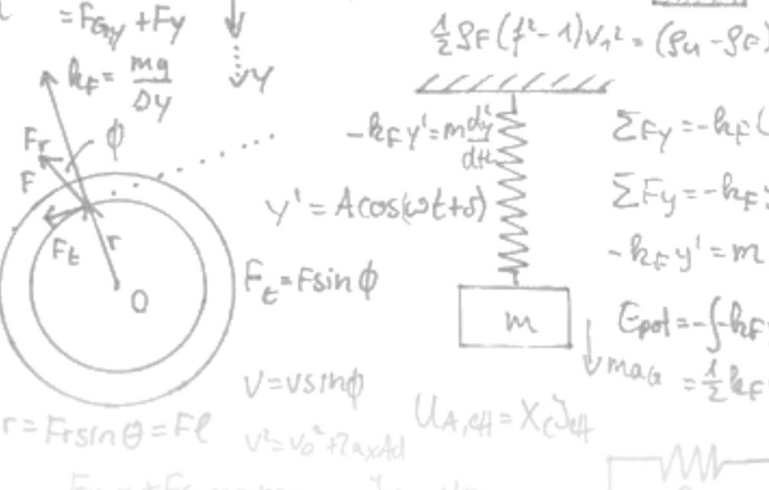
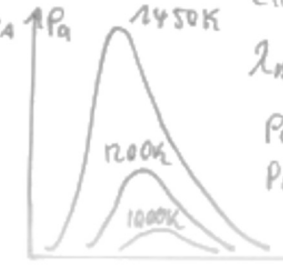
$$\psi = 0 \cdot d = n \frac{\lambda}{2}; n = 1, 2, 3, \dots$$

$$E = \frac{1}{2} m v^2 = \frac{p^2}{2m}; E_n = \frac{p_n^2}{2m}$$

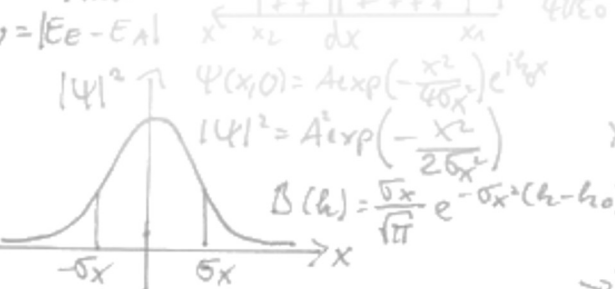


$$v = \sqrt{\frac{2(m_2 - m_1)gh}{(m_1 + m_2)}}$$

$$2\pi v = k \lambda \Rightarrow \frac{2\pi}{\lambda} v = k \Rightarrow \lambda_{\text{max}} = \frac{2.99 \text{ mm} \cdot \text{K}}{T}$$



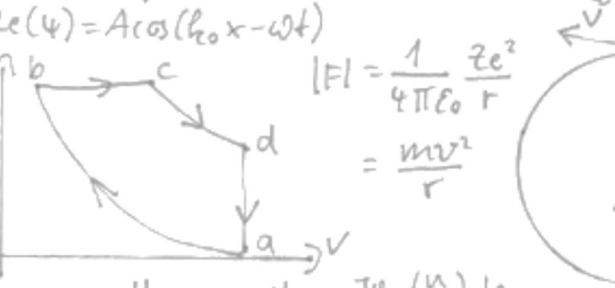
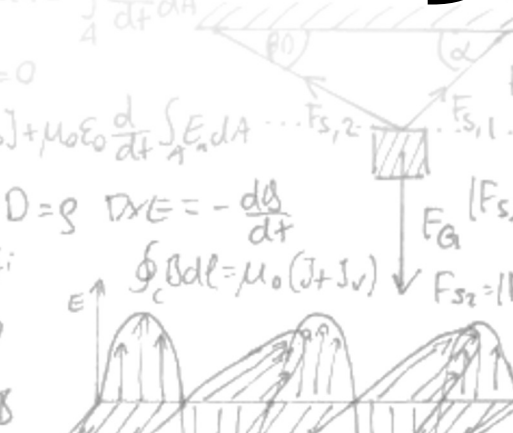
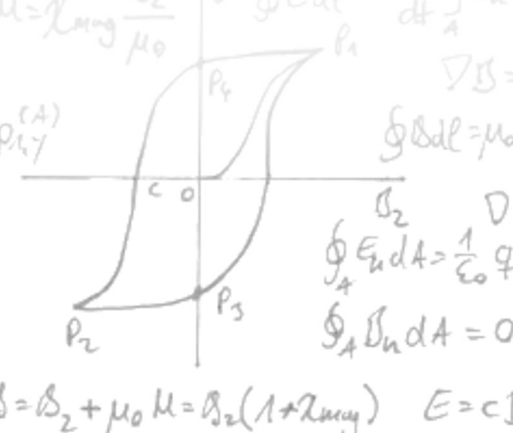
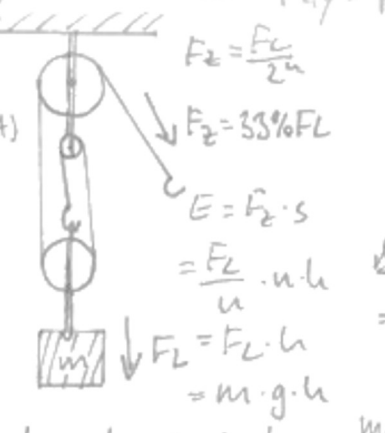
$n=4$	$E_4 = 16E_1$
$n=3$	$E_3 = 9E_1$
$n=2$	$E_2 = 4E_1$
$n=1$	$E_1 = E_1$



$$E_{\text{pot}} = -\frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$$

$$E_{\text{kin}} = \frac{1}{2} m v^2 = \frac{1}{2} \frac{1}{4\pi\epsilon_0} \frac{ze^2}{r}$$

$$E_{\text{pot}} = -2E_{\text{kin}}$$



$$E_{\text{pot}} = -\frac{1}{4\pi\epsilon_0} \frac{q_1 q_2}{r}$$

$$\frac{1}{f} = \frac{1}{S} + \frac{1}{S'}$$

$$E = cB$$

$$B = B_2 + \mu_0 J = B_2(1 + \lambda_{\text{mag}})$$

$$E_{\text{pot}} = \frac{1}{2} m_1 v_{1e}^2 + \frac{1}{2} m_2 v_{2e}^2$$



NYE EKSAMENSFORMER



NYE EKSAMENSFORMER



ChatGPT



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