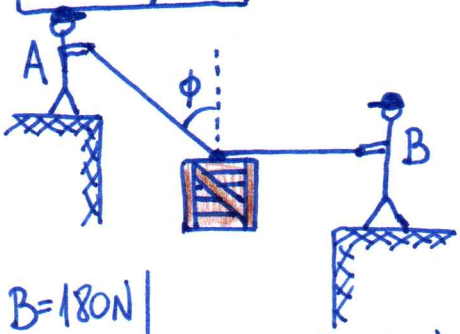
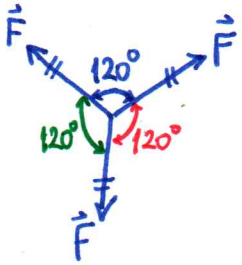
13104/B2



$B = 180N$
$\eta\mu\phi = 0{,}8$
$\sigma\upsilon\nu\phi = 0{,}6$

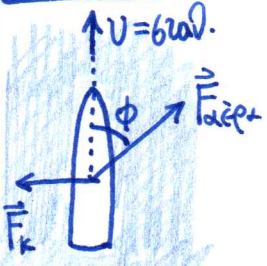
A. $F_A = F_B = 90\,N$
B. $F_A = 300\,N$, $F_B = 240\,N$
Γ. $F_A = 100\,N$, $F_B = 180\,N$

13271/B2



A. $\Sigma F = 0$
B. $\Sigma F = F$
Γ. $\Sigma F = 2F$

13346/B2

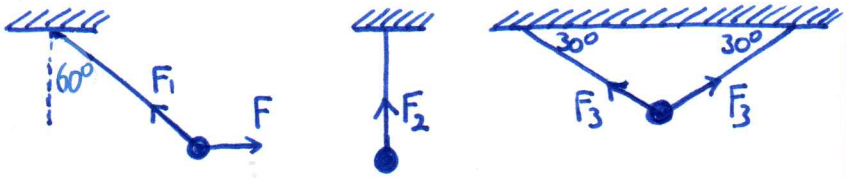


$F_{αέρα} = 2\cdot10^4\,N$
$\eta\mu\phi = 0{,}6$
$\sigma\upsilon\nu\phi = 0{,}8$

A. $F_ε = 2\cdot10^4\,N$
B. $F_ε = 1{,}2\cdot10^4\,N$
Γ. $F_ε = 1{,}6\cdot10^4\,N$

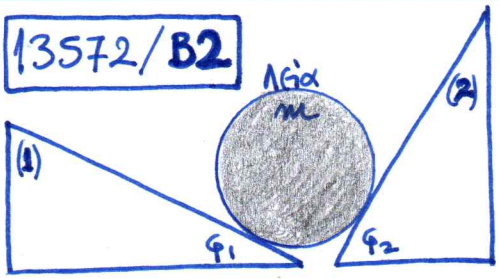
Ποια άλλη δύναμη ασκείται στο σκάφος;

13508/B2 ($\sigma\upsilon\nu60° = 1/2$)



A. $F_1 > F_2 > F_3$ B. $F_1 > F_2 = F_3$ Γ. $F_1 < F_2 = F_3$

13572/B2



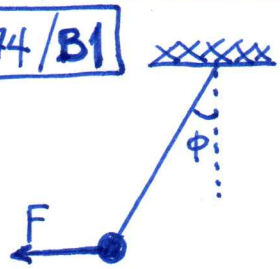
$m = 100\,kg$, $\varphi_1 = 30°$, $\varphi_2 = 60°$
F_1: δύναμη από την (1) στην σφαίρα
F_2: δύναμη από την (2) στην σφαίρα

A. $F_1 = mg\,\sigma\upsilon30°$, $F_2 = mg\,\sigma\upsilon60°$
B. $F_1 = mg\,\eta\mu30°$, $F_2 = mg\,\eta\mu60°$
Γ. $F_1 = mg\,\eta\mu30°$, $F_2 = mg\,\sigma\upsilon60°$

13573/B2

A. $F_{τοιχου} = \dfrac{mg}{\sigma\upsilon\phi}\eta\mu\phi$
B. $F_{τοιχου} = \dfrac{mg}{\eta\mu\phi}\cdot\sigma\upsilon\phi$
Γ. $F_{τοιχου} = mg$

13574/B1

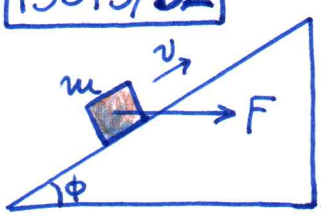


$m = 1\,kg$
$g = 10\,m/s^2$
$F = 10\,N$

A. $\varphi = 30°$
B. $\varphi = 45°$
Γ. $\varphi = 60°$

φ	ημφ	συνφ	εφφ
0°	0	1	0
30°	1/2	$\sqrt{3}/2$	$\sqrt{3}/3$
45°	$\sqrt{2}/2$	$\sqrt{2}/2$	1
60°	$\sqrt{3}/2$	1/2	$\sqrt{3}$
90°	1	0	–

13575/B2



$m = 1\,kg$, $g = 10\,m/s^2$
$\upsilon = 6\,m/s$ σταθερή
$\mu = 0{,}2$, $\eta\mu\phi = \sigma\upsilon\nu\phi$

A. $F = \frac{3}{2}B$
B. $\frac{3}{2}F = B$
Γ. $F = B$

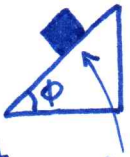
13578/B2

ΣΧΗΜΑ της 13573/B2

Τριβή = $2\cdot F_{τοιχου}$

A. $\eta\mu\varphi = 0{,}5$
B. $\eta\mu\varphi = 0{,}6$
Γ. $\eta\mu\varphi = \sigma\upsilon\nu\varphi$

13657/B2

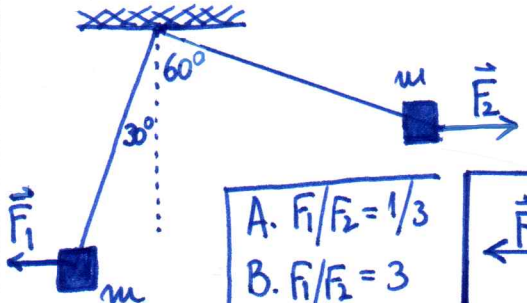


αντιστοίχιση:

α) N i) mg
β) $T_{στ.}$ ii) $mg\,\eta\mu\phi$
γ) $F_{επιπέδου}$ iii) $mg\,\sigma\upsilon\nu\phi$

Ισορροπία

13614/B2

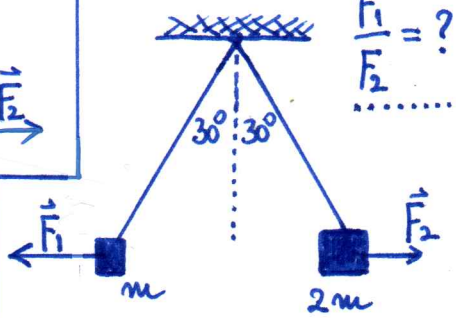


A. $F_1/F_2 = 1/3$
B. $F_1/F_2 = 3$
Γ. $F_1/F_2 = \sqrt{3}$

13615/B2

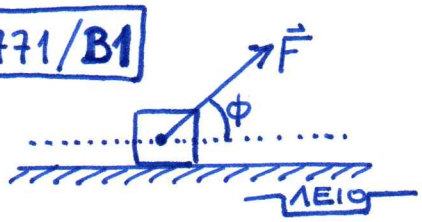
$m = 1\,kg$

$\frac{F_1}{F_2} = ?$



A. 1/2 B. 2 Γ. $\sqrt{2}$

13771/B1

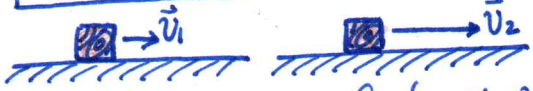


$\eta\mu\varphi = 0{,}6$, $\sigma\upsilon\nu\varphi = 0{,}8$

Η F διαρκώς αυξάνεται. Όταν το σώμα χάνει την επαφή του με το έδαφος:

A. $0{,}8F = W$ B. $0{,}6F = W$ Γ. $F = W$

13773/B1

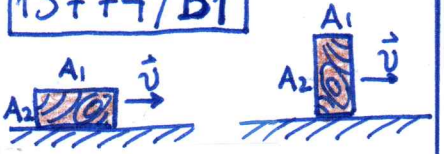


v_1: σταθερή, v_2: σταθερή, $v_1 < v_2$

T_1, T_2: τριβές ολίσθησης

A. $T_1 = T_2$ B. $T_1 > T_2$ Γ. $T_1 < T_2$

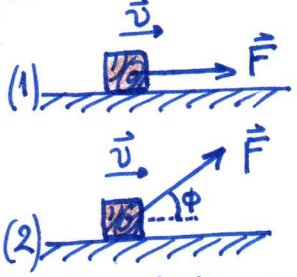
13774/B1



$\vec{v}$: σταθερή, $A_2 = A_1/3$

A. $T_1 = 3T_2$ B. $T_1 = T_2$ Γ. $T_1 = \frac{1}{3}T_2$

13776/B1



$\eta\mu\varphi = \sigma\upsilon\nu\theta$, $\sigma\upsilon\nu\varphi = \eta\mu\theta$

$\vec{v}$ = σταθερή σε (1) και (2)

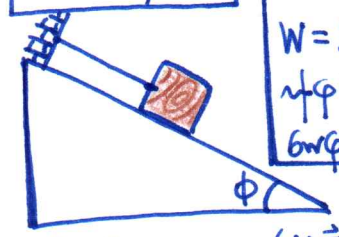
A. $T_1/T_2 = 1/1$

B. $T_1/T_2 = 3/5$

Γ. $T_1/T_2 = 5/3$

13782/B1

Τ: τάση νήματος
$W = 2T$
$\eta\mu\varphi = 0{,}6$
$\sigma\upsilon\nu\varphi = 0{,}8$



A. $T_{62.} = 0{,}2\,mg\,(\uparrow\uparrow \vec{T})$

B. $T_{62.} = 0{,}1\,mg\,(\uparrow\downarrow \vec{T})$

Γ. $T_{62.} = 0{,}1\,mg\,(\uparrow\uparrow \vec{T})$

14223/B2

$F = F'$
$\eta\mu\varphi = 0{,}6$
$\sigma\upsilon\nu\varphi = 0{,}8$

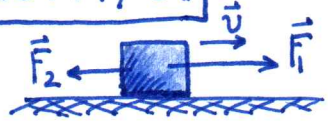
A. $F_\alpha = B$

B. $F_\alpha = 5B/6$

Γ. $F_\alpha = B/2$

$\vec{F}_\alpha$: δύναμη σε κάθε χεριά όταν ανύψωσαι κρίκο

13777/B1



$\vec{v}$ = σταθερή

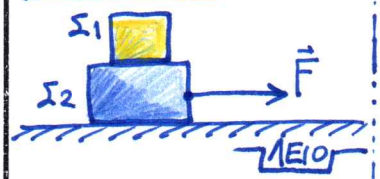
$F_1 = W$, $F_1 = 3F_2$

A. $\mu = 1/3$

B. $\mu = 2/3$

Γ. $\mu = 1/2$

13464/B2



$m_1 = 3\,kg$, $m_2 = 5\,kg$

$F = 80N$. Το Σ1 δέχεται όταν διπλώνει την επιφάνεια επαφής του με το Σ2:

A. $T = 30N$ οριζόντια προς τα δεξιά

B. $T = 30N$ οριζόντια προς τ' αριστερά

Γ. μηδενική δύναμη

13465/B2!

$\varphi = 30°$
$\sqrt{3} \approx 1{,}7$

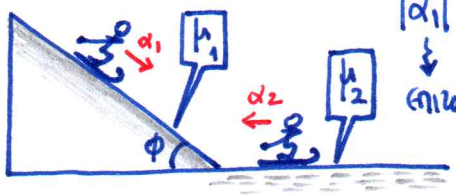
Ο συντελεστής οριακής τριβής ΔΕΝ μπορεί να είναι:

A. 0,8 B. 0,6 Γ. 0,4

13098/B2 (13099/B2)

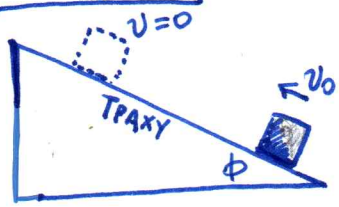
$\eta\mu\varphi = 0{,}6$ | $\mu_1 = 0{,}25$
$\sigma\upsilon\nu\varphi = 0{,}8$ | $\mu_2 = ?$

$|\alpha_1| = |\alpha_2|$ ↓ επιτάχ. ↓ επιβρ.



A. 0,25 B. 0,4

13468/B2



Το σώμα ανεβαίνει, σταματάει και γυρνάει πίσω.

α_1: μέτρο επιβραδύνσεως ανόδου

α_2: μέτρο επιτάχυνσης καθόδου

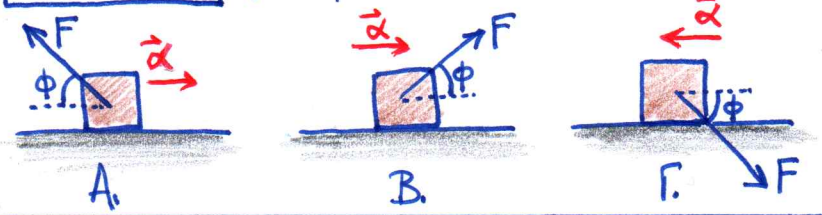
A. $\alpha_1 > \alpha_2$ B. $\alpha_1 < \alpha_2$ Γ. $\alpha_1 = \alpha_2$

13554/B2

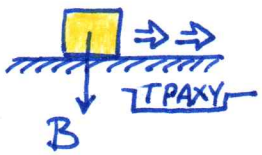
$\vec{\upsilon}$: ίδια και σταθερή για "1" κ' "2"

A. $F_A = 2F_B$ B. $F_B = 2F_A$ Γ. $F_B = F_A$

13570/B2 $\varphi = 30°$, $T = F \cdot \sigma\upsilon\nu 30° - m\alpha$



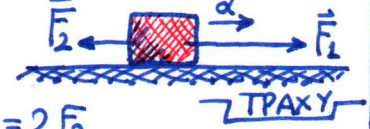
13616/B1



F_A: η δύναμη που δέχεται το σώμα από το δάπεδο

A. $F_A = B$ B. $F_A > B$ Γ. $F_A < B$

13778/B1



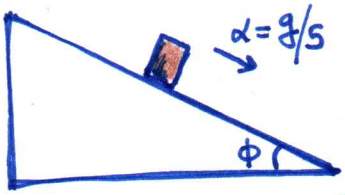
$\alpha = g/5$, $F_1 = 2F_2$

$F_1 = W$

A. $\mu = 0{,}1$ B. $\mu = 0{,}2$ Γ. $\mu = 0{,}3$

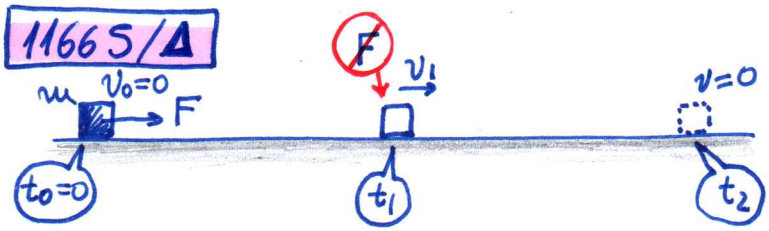
13785/B1

$\eta\mu\varphi = 0{,}6$
$\sigma\upsilon\nu\varphi = 0{,}8$



A. $\mu = 3/4$ B. $\mu = 1/2$ Γ. $\mu = 1/3$

11665/Δ



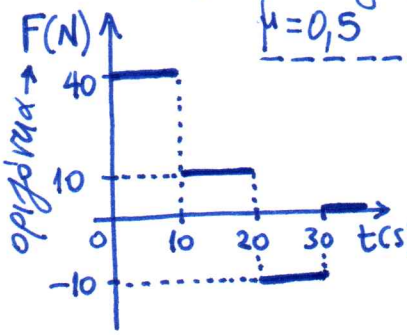
$m = 2kg$, $g = 10m/s^2$, $t_1 = 4sec$, $\upsilon_1 = 20m/s$, $t_2 = 12sec$

Δ1) $\alpha_2 = ?$ $(t_1 \to t_2)$ Δ3) $F = ?$ $\Delta x_{ολ} = ?$

Δ2) $\mu = ?$ Δ4) $W_T = ?$ $(t_0 \to t_2)$

11680/Δ

$m = 2kg$, $g = 10m/s^2$
$\mu = 0{,}5$



Δ1) $\alpha - t$ (διάγρ.)

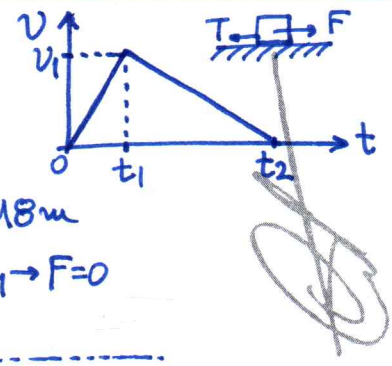
Δ2) $\upsilon - t$ (διάγρ.)

Δ3) $t_{ολ} = ?$ (έως $\upsilon = 0$)

Δ4) $W_T^{ολ.} = ?$ $\to \Delta x_{ολ} = ?$

13563/Δ

$m = 2kg$, $g = 10m/s^2$
$\mu = 0{,}2$
$t_2 = 6sec$, $S_{ολ.} = 18m$



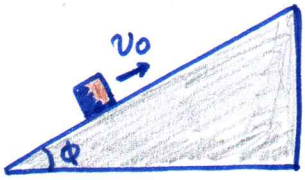
F, T: $(0 \dots t_1)$, $t_1 \to F = 0$

T: $(t_1 \dots t_2)$

Δ1) $\upsilon_1 = ?$ Δ3) $F = ?$

Δ2) $t_1 = ?$ Δ4) $E_{προσφ.} = ?$

12990/Δ



$m = 1\,kg$
$g = 10\,m/s^2$
$\upsilon_0 = 10\,\frac{m}{s}$
$\phi = 30^\circ$
$\mu_{op.} = \sqrt{3}/4$
$\mu_{ol.} = \sqrt{3}/5$

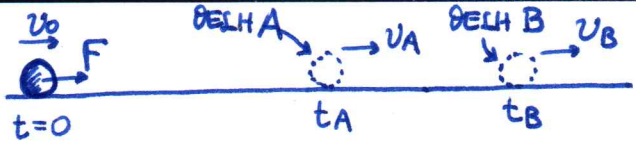
Δ1) $\Delta x_{stop} = ?$

Δ2) ν.δ.ο. το σώμα επιβραδύνει

Δ3) $\upsilon' = ?$ όταν σμίγει στο έδαφος

Δ4) $Q_{ολικό} = ?$ μέχρι το σώμα ακινητοποιηθεί

13587/Δ



$m = 10\,kg$
$\upsilon_0 = 10\,m/s$
$F = 50\,N$
$t_A = 10\,sec$
$\upsilon_A = 30\,m/s$
$g = 10\,m/s^2$

Δ1) Υπάρχει τριβή; αν ναι πόση $T = ?$

Δ2) $x_B = ?$ $(\upsilon_B = 2\upsilon_0)$

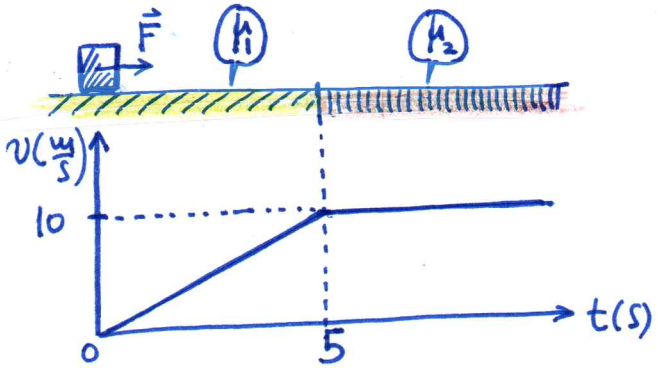
αν πριν τη χρονική στιγμή t_A το σώμα συναντήσει διαφορετικό έδαφος με $\mu = 0{,}6$

Δ3) $x_\Gamma = ?$ $(\upsilon_\Gamma = 0)$

Δ4) $\upsilon - t$ (διάγρ.) $(0 \ldots t_\Gamma)$

13590/Δ

$m = 2\,kg$
$F = 6\,N$
$g = 10\,m/s^2$



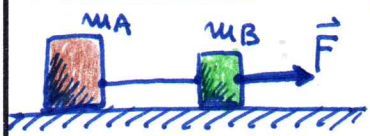
Δ1) Υπάρχει τριβή?
αν ναι: $\mu_1 = ?$ $\mu_2 = ?$

Δ2) $\Delta x = ?$ $(0 \ldots 10\,sec)$

Δ3) $t' = 10\,sec \rightarrow F = 0$, πότε θ' ακινητοποιηθεί ο κύβος?

Δ4) $W_F = ?$ (για όλο το χρονικό διάστημα της κίνησής του).

13633/Δ



$m_A = 4\,kg$, $m_B = 1\,kg$
$g = 10\,m/s^2$, $F = 20\,N$
$\mu_{op.} = 0{,}25$, $\mu_{ol.} = 0{,}2$

Δ1) ν.δ.ο. το σύστημα ξεκινάει

Δ2) $\alpha = ?$, $T = ?$ (τάση)

Δ3) $P_F = ?$ $(t_1 = 10\,sec)$

Δ4) $W_F = ?$ $(0 \ldots 10\,sec)$

13635/Δ

$m_A = 4\,kg$
$m_B = 1\,kg$
$g = 10\,m/s^2$
$\upsilon_0 = 0$
$\mu_{ol.} = \mu_{op.} = 0{,}5$

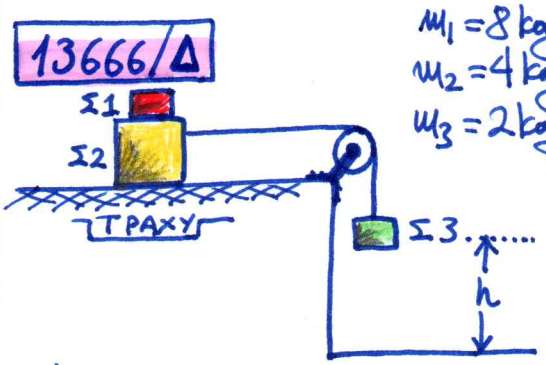
Δ1) ν.δ.ο. το σύστημα ξεκινάει

Δ2) $\alpha = ?$

Δ3) $\upsilon_1 = ?$ $\Delta x_1 = ?$ $(t_1 = 0{,}1\,sec)$

Δ4) $Q = ?$ $(0 \ldots 0{,}1\,sec)$

13666/Δ



$m_1 = 8\,kg$
$m_2 = 4\,kg$
$m_3 = 2\,kg$

$g = 10\,m/s^2$
$\mu_{op.} = 0{,}25$
$\mu_{ol.} = 0{,}2$
$h = 1\,m$

Δ1) $T = ?$ (πριν σ2 κ' πάλι) Γιατί το σύστημα δεν κινείται?

Δ2) Αφαιρούμε το Σ1. ν.δ.ο. το σύστημα θα κινηθεί. $\alpha = ?$

Δ3) $\Delta t_{κίνησης} = ?$ (...Σ3 στο έδαφος)

Δ4) $Q = ?$ (...Σ3 στο έδαφος)