

Ülesanne 1. Vormistusvahendid

* lahendused on kasulik teha kõrvale lahtrisse

1. [1p] Sisestage järgmine valem:

$$\psi(\tau, \theta) = \left[\frac{\frac{13}{m^4}}{-\alpha} \cdot \left(g \frac{-m!}{\pi} + \sqrt{v \cdot \sin\left(\theta \cdot \frac{\pi}{180}\right)} \right) \cdot \left(1 - \frac{\exp\left(\frac{-\alpha}{m} \cdot \tau\right)}{|e^{m-1}|} \right) \right] - g \cdot \frac{m}{\alpha} \cdot \tau$$

Kopeerige sisestatud valem ja lisage järgmised juured ja sulud :

$$\psi(\tau, \theta) = \left[\frac{\left(\frac{m \sqrt{\frac{13}{4}}}{-\sqrt{\alpha}} \right) \cdot \left[\left(g \frac{\sqrt{-m!}}{\pi} \right) + \sqrt{v \cdot \sin\left[\theta \cdot \left(\frac{\pi}{180}\right)\right]} \right]}{\left[\frac{\exp\left(\frac{-\alpha}{m} \cdot \tau\right)}{\left| \left(\frac{3\sqrt{e}}{m-1}\right) \right|} \right]} \right] - g \cdot \sqrt{\frac{m}{\alpha}} \cdot \tau$$

2. [0,5p] Kustutage järgmisest avaldisesest transponeerimise (T), vektoriseerimise (nooled) ja ruutjuure operaatorid. Lisaks vahetage kõik liitmised lahutamistega. Puhastage valem üleliigsetest suludest.

$$F = (-m \cdot g)^T \cdot e_y + m \cdot \left[\frac{\alpha \cdot |v| + \beta \cdot \left[(|v|)^2 \right]}{\frac{45}{\sqrt{\left(\frac{234 \sqrt{\sin(\pi)}}{4 + \sqrt{\sin(\pi)}} \right)}} \cdot \frac{23}{\cos(3.267)}} \right]^{e^{(v+1)}} + \left[\gamma \cdot (|v|)^3 \right]^T \cdot \left(\frac{v}{|v|} \right)^T$$

3. [0,5p] Kustutage allolevast maatriksist ära 5. veerg.

$\frac{622203}{739423}$	$\frac{1029101}{1131754}$	$\frac{308156}{2183645}$	$\frac{541555}{715583}$	$\frac{764768}{797527}$	$\frac{450142}{1611013}$	$\frac{294194}{447793}$	21.23
$\frac{618328}{682799}$	-21	$\frac{1968187}{2581031}$	$\frac{789079}{825072}$	$\frac{599401}{2212581}$	$\frac{450142}{1611013}$	$\frac{384039}{388691}$	$\frac{354473}{860124}$
$\frac{491935}{581332}$	$\frac{395173}{530353}$	-sin(π)	$\frac{1600495}{1746271}$	$\frac{14917618}{17934685}$	202	$\frac{2810820}{6956827}$	$\frac{906887}{1667007}$
$\frac{60857}{6875480}$	$\frac{433839}{450136}$	$\frac{738988}{961905}$	$\frac{561951}{4547518}$	111	$\frac{450142}{1611013}$	$\frac{1086074}{1969571}$	$\frac{1429513}{1429527}$
$\frac{734126}{877453}$	$\frac{470454}{1587395}$	$\frac{2286435}{3552913}$	$\frac{1301679}{1312469}$	$\frac{403745}{942927}$	666	$\frac{6046672}{6047205}$	$\frac{2070123}{3858046}$
$\frac{878907}{962716}$	$\frac{166306}{1109615}$	$\frac{424274}{564955}$	$\frac{3056622}{3179353}$	-10^{-45}	$\frac{450142}{1611013}$	$\frac{1777107}{1793957}$	$\frac{212452}{505637}$

Seejärel tekitage 2. ja 3. rea vahele kaks uut rida ning 4. ja 5. veeru vahele üks uus veerg. Täitke need täisarvudega lugedes järjest 1,2,3, ... enda soovitud järjekorras.