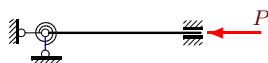


Устойчивость стержня на упругих опорах

Прямолинейный стержень длиной l , закрепленный на одном конце в упругой опоре, сжимается продольной силой P . Задана относительная жесткость для линейного смещения Δy опоры $a = EJ/(c_1 l^3)$, где c_1 — жесткость пружины ($N_{\text{упр}} = c_1 \Delta y$,) или относительная жесткость для углового смещения $\Delta \varphi$ $b = EJ/(c_2 l)$, где c_2 — жесткость пружины ($M_{\text{упр}} = c_2 \Delta \varphi$.) Определить коэффициент μ приведения длины стержня.

Задача 33.1.

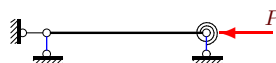
l



$$b = 0.916$$

Задача 33.2.

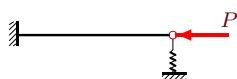
l



$$b = 0.104$$

Задача 33.3.

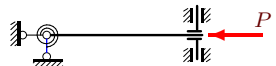
l



$$a = 1.723$$

Задача 33.4.

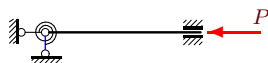
l



$$b = 0.048$$

Задача 33.5.

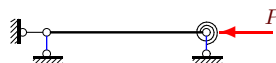
l



$$b = 0.372$$

Задача 33.6.

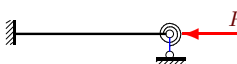
l



$$b = 1.093$$

Задача 33.7.

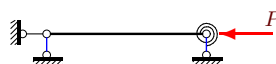
l



$$b = 0.372$$

Задача 33.8.

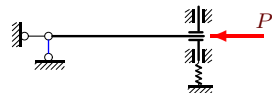
l



$$b = 0.308$$

Задача 33.9.

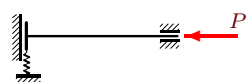
l



$$a = 0.061$$

Задача 33.10.

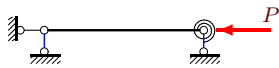
l



$$a = 0.040$$

Задача 33.11.

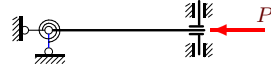
l



$b = 0.219$

Задача 33.12.

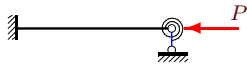
l



$b = 1.835$

Задача 33.13.

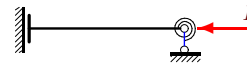
l



$b = 0.134$

Задача 33.14.

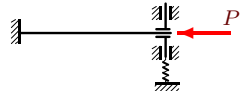
l



$b = 0.505$

Задача 33.15.

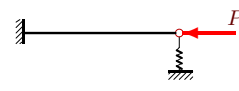
l



$a = 0.206$

Задача 33.16.

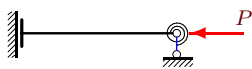
l



$a = 0.135$

Задача 33.17.

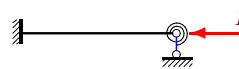
l



$b = 1.095$

Задача 33.18.

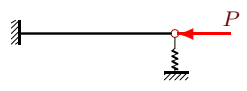
l



$b = 0.916$

Задача 33.19.

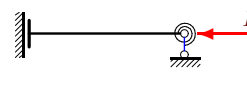
l



$a = 0.376$

Задача 33.20.

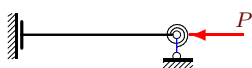
l



$b = 4.059$

Задача 33.21.

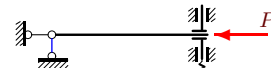
l



$b = 0.103$

Задача 33.22.

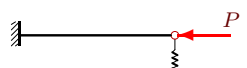
l



$a = 0.099$

Задача 33.23.

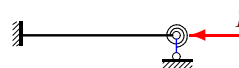
l



$a = 0.159$

Задача 33.24.

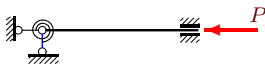
l



$b = 0.057$

Задача 33.25.

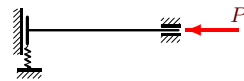
l



$$b = 0.554$$

Задача 33.26.

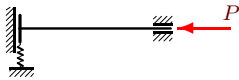
l



$$a = 0.029$$

Задача 33.27.

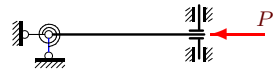
l



$$a = 0.206$$

Задача 33.28.

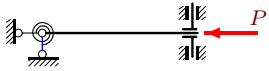
l



$$b = 4.059$$

Задача 33.29.

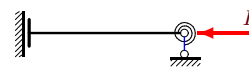
l



$$b = 0.357$$

Задача 33.30.

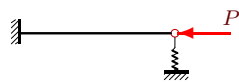
l



$$b = 0.357$$

Задача 33.31.

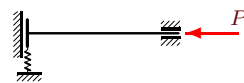
l



$$a = 0.376$$

Задача 33.32.

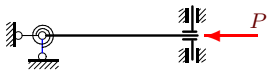
l



$$a = 0.058$$

Задача 33.33.

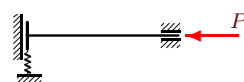
l



$$b = 0.250$$

Задача 33.34.

l



$$a = 0.040$$

Устойчивость стержня на упругих опорах

| № | μ |
|----|-------|
| 1 | 0.652 |
| 2 | 0.762 |
| 3 | 1.833 |
| 4 | 1.048 |
| 5 | 0.611 |
| 6 | 0.928 |
| 7 | 0.611 |
| 8 | 0.837 |
| 9 | 0.850 |
| 10 | 0.579 |
| 11 | 0.810 |
| 12 | 1.692 |
| 13 | 0.558 |
| 14 | 1.375 |
| 15 | 0.846 |
| 16 | 1.100 |
| 17 | 1.571 |
| 18 | 0.652 |
| 19 | 1.467 |
| 20 | 1.833 |
| 21 | 1.100 |
| 22 | 0.993 |
| 23 | 1.158 |
| 24 | 0.527 |
| 25 | 0.631 |
| 26 | 0.524 |
| 27 | 0.846 |
| 28 | 1.833 |
| 29 | 1.294 |
| 30 | 1.294 |
| 31 | 1.467 |
| 32 | 0.647 |
| 33 | 1.222 |
| 34 | 0.579 |