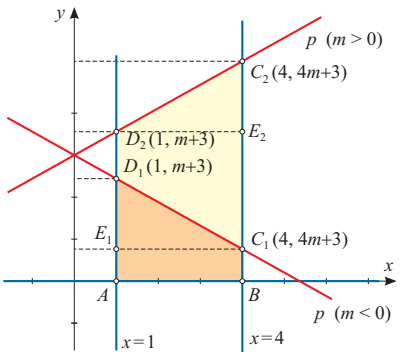
Zadatak 26. Za koje je m površina konveksnog četverokuta što ga zatvaraju pravci $y = mx + 3$, $x = 1$, $x = 4$ s osi apscisa jednaka 12?

Rješenje.



$m > 0$

$P = P_{ABE_2D_2} + P_{E_2C_2D_2}$

$12 = 3\cdot(m+3) + \dfrac{3\cdot[(4m+3)-(m+3)]}{2}$

$12 = 3m + 9 + \dfrac{3}{2}\cdot 3m$

$12 = 3m + 9 + \dfrac{9}{2}m$

$\dfrac{15m}{2} = 3 \quad / \cdot \dfrac{2}{15}$

$m = \dfrac{2}{5}$

$m < 0$

$P = P_{ABC_1E_1} + P_{E_1C_1D_1}$

$12 = 3\cdot(4m+3) + \dfrac{3}{2}\cdot(m+3-4m-3)$

$3 = 12m - \dfrac{9}{2}m$

$\dfrac{15m}{2} = 3 \quad / \cdot \dfrac{2}{15}$

$m = \dfrac{2}{5}$

nije rješenje jer je pretpostavka $m < 0$