

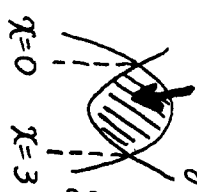
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(1)

図形F

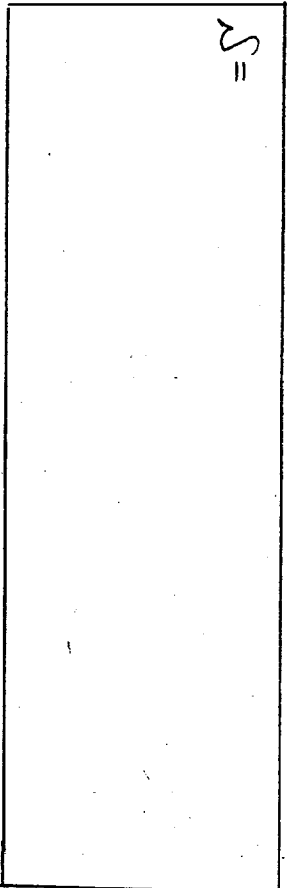
$y = 5x^2 - 12x$

$y = -3x^2 + 12x$



$$\begin{cases} 5x^2 - 12x = -3x^2 + 12x \\ 8x^2 - 24x = 0 \\ x^2 - 3x = 0 \\ x(x-3) = 0 \\ x = 0, 3 \end{cases}$$

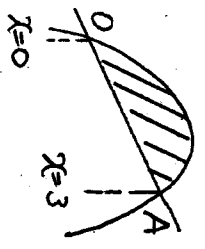
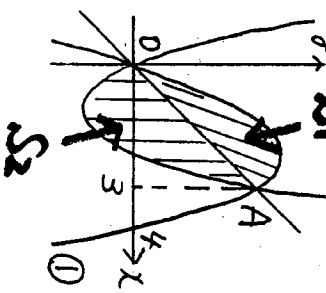
$S =$



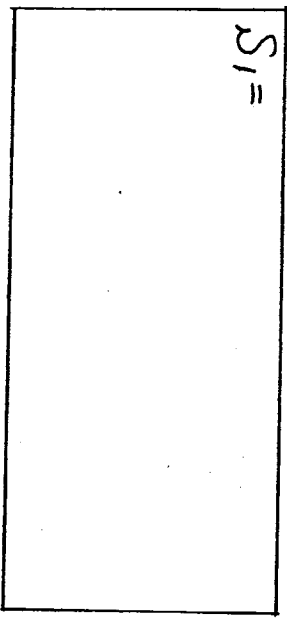
(2)

S_1

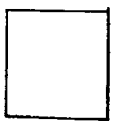
A(3, 9) 頂点
OA: $y = 3x$ (7)



$S_1 =$



$S_2 = S - S_1 =$



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$S_1 : S_2 =$

(3)

$y = mx$

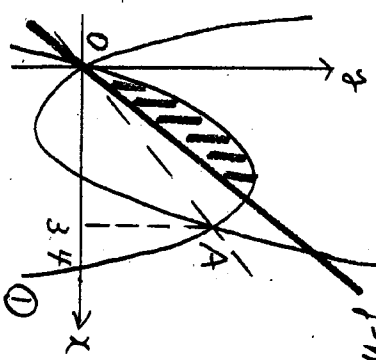
①と $y = mx$ と 連立

$mx = -3x^2 + 12x$

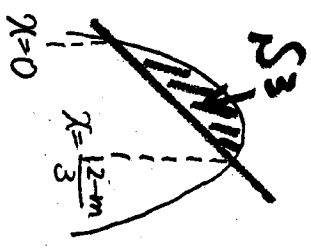
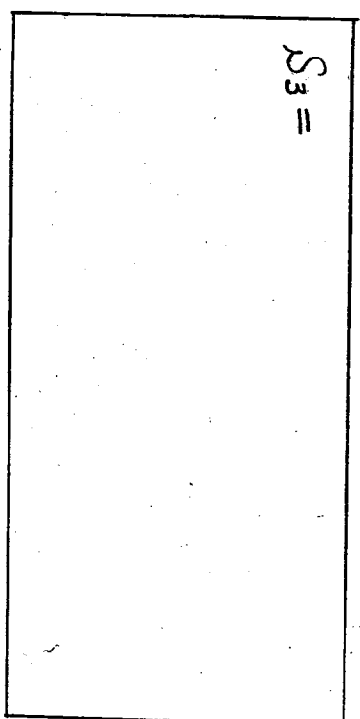
$3x^2 + (m-12)x = 0$

$x \{ 3x + (m-12) \} = 0$

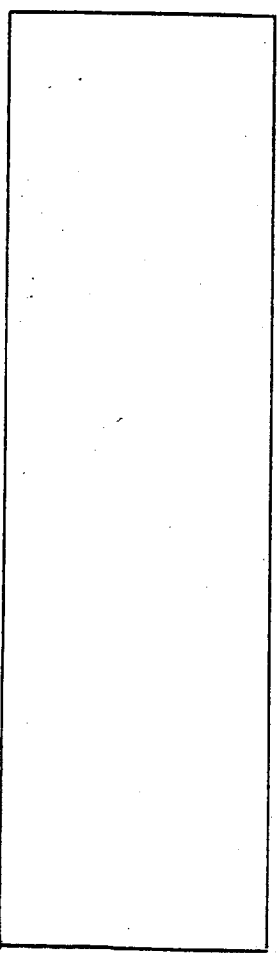
$x = 0, \frac{12-m}{3}$



$S_3 =$



$y = mx$ が 図形Fの面積を 1:8 に分る3と3



解

(71) 36 (7) 3 (17) 3:5 (カ) $\frac{(12-m)^3}{54}$ (4) 6