



2. úloha (0,1)

směr máti veš  
směr rotel' na  $\frac{1}{2}$

$(\frac{1}{2}, \frac{1}{2})$   $\frac{1}{2} \cdot \frac{1}{2}$

$x_1 \in \frac{1}{2}$   
 $x_2 \in \frac{1}{2}$

$x_1 > \frac{1}{2}$   
 $x_2 > \frac{1}{2}$   
 $x_1 + x_2 < 1$   
 $y < 1-x$

$\frac{d}{dx} = 1-x$   
 $d = 1-x$   
 $d = 1-x$   
 $d^2 = -1$   
 $(1-x)(1-x) = 0$   
 $x = \frac{1}{2}$   
 $x = \frac{1}{2}$

$\int_{\frac{1}{2}}^1 (1-x) - \frac{1}{2} dx =$   
 $[x - \frac{1}{2}x^2 - \frac{1}{2}x]_{\frac{1}{2}}^1 =$   
 $(\frac{1}{2} - \frac{1}{4} - \frac{1}{4}) - (\frac{1}{4} - \frac{1}{8} - \frac{1}{4}) =$   
 $= \frac{1}{4} - \frac{1}{4} - \frac{1}{4} + \frac{1}{8} + \frac{1}{4} = \frac{1}{8}$

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1. úloha  
Bokoplocha

$l < d$

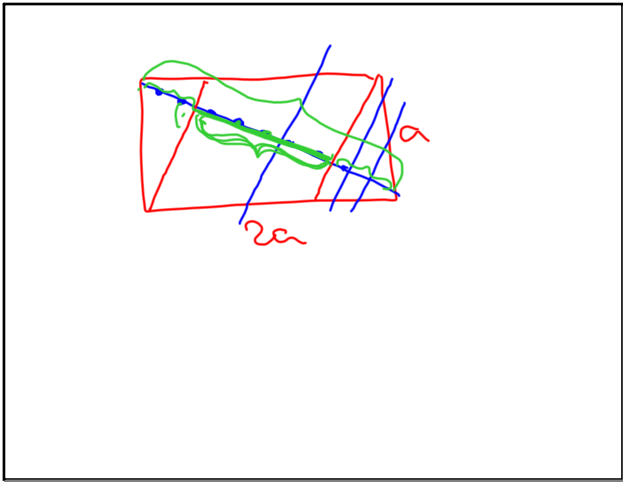
3y ml. abchů dky od nřt.  
nřt.

$0 < y < \frac{1}{2}$   
 $0 < x < \pi$

$\sin \alpha = \frac{1}{2}$   
 $\alpha = \frac{1}{2} \sin \alpha$   
 $0 < y < \frac{1}{2} \sin \alpha$

$P = \frac{1}{2} \int_0^{\frac{1}{2}} \sin \alpha dx =$   
 $\frac{1}{2} [-\cos \alpha]_0^{\frac{1}{2}} =$   
 $= \frac{1}{2} \cdot (-\cos \frac{1}{2} + \cos 0) =$   
 $= \frac{1}{2} (1 - \cos \frac{1}{2}) = \frac{2(1 - \cos \frac{1}{2})}{2}$

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