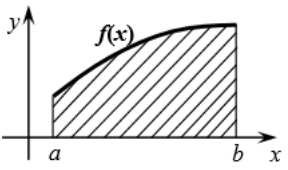
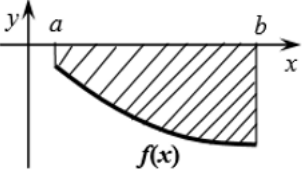
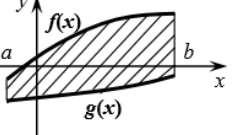
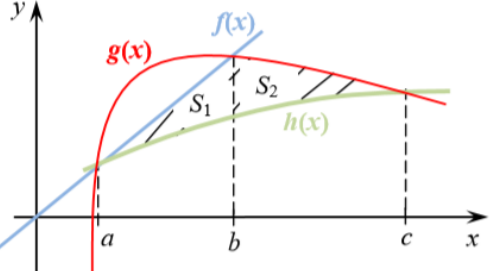
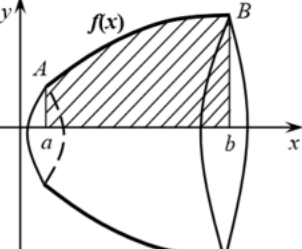
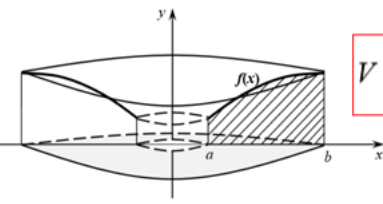
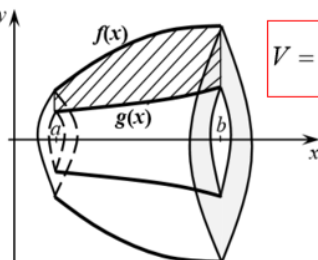


MÄÄRATUD INTEGRAALI RAKENDUSI

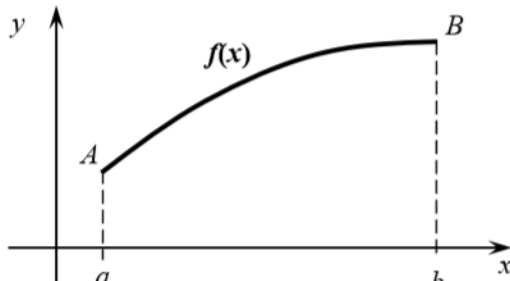
I Tasandilise kujundi pindala arvutamine

<p>1)</p>  $S = \int_a^b f(x) dx$	<p>2)</p>  $S = -\int_a^b f(x) dx$
<p>3)</p>  $S = \int_a^b [f(x) - g(x)] dx$	<p>4)</p>  $S = S_1 + S_2 = \int_a^b [f(x) - h(x)] dx + \int_b^c [g(x) - h(x)] dx$

II Pöördkeha ruumala arvutamine

<p>5) Pöördkeha, mis tekib kõvertrapetsi AabB pöörlemisel ümber x-telje</p>  $V = \pi \int_a^b f^2(x) dx$	<p>6) Pöördkeha, mis tekib kõvertrapetsi pöörlemisel ümber y-telje</p>  $V = 2\pi \int_a^b x \cdot f(x) dx$
<p>7) Pöörlemine ümber x-telje</p>  $V = \pi \int_a^b [f^2(x) - g^2(x)] dx$	

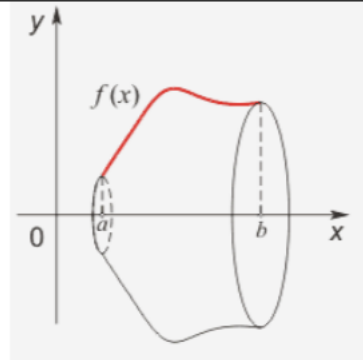
III Joone kaare pikkuse arvutamine

 $s(AB) = \int_a^b \sqrt{1 + [f'(x)]^2} dx$

Pöördpinna pindala

(6) pöörlamine ümber x-telje

$$S = 2\pi \cdot \int_a^b f(x) \cdot \sqrt{1 + (f'(x))^2} dx$$



(7) pöörlamine ümber y-telje

$$S = 2\pi \int_a^b x \sqrt{1 + (f'(x))^2} dx$$

