

	Navn:		Skole:	
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Opgave 409

$$f(x) = \sqrt{x}$$

$$f'(x) = \frac{1}{2}x^{-\frac{1}{2}}$$

$$x_1 = 1$$

$$x_2 = 5$$

$$L = \int_{x_1}^{x_2} \sqrt{1 + f'(x)^2} dx$$

$$L = \int_1^5 \sqrt{1 + \left(\frac{1}{2}x^{-\frac{1}{2}}\right)^2} dx$$

$$L = 4,195354$$