# Make-up quiz 6

(!) This is a preview of the published version of the quiz

Started: Jan 5 at 2:06pm

## **Quiz Instructions**

#### **Question 1**

1 pts

Solve the initial-value problem,  $ig(1+\cos(x)ig)y'=(1+e^{-y})\sin(x)\,, \qquad y(0)=0\,.$ 



**Question 2** 

1 pts

Find the length of the curve,  $y=rac{1}{6}(x^2+4)^{3/2}\,, \qquad 0 \leq x \leq 3.$ 



#### **Question 3**

1 pts

Find the area enclosed by the functions  $f(x)=5x-x^2$  and g(x)=x.



### **Question 4**

1 pts

Find the volume of the solid obtained by rotating about the x-axis the region under the curve  $y=\sqrt{2x+1}$  from 0 to 1.



#### **Question 5**

1 pts

The arc of the parabola  $y=x^2$  from (0,0) to (1,1) is rotated about the y-axis. Find the area of the resulting surface.

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