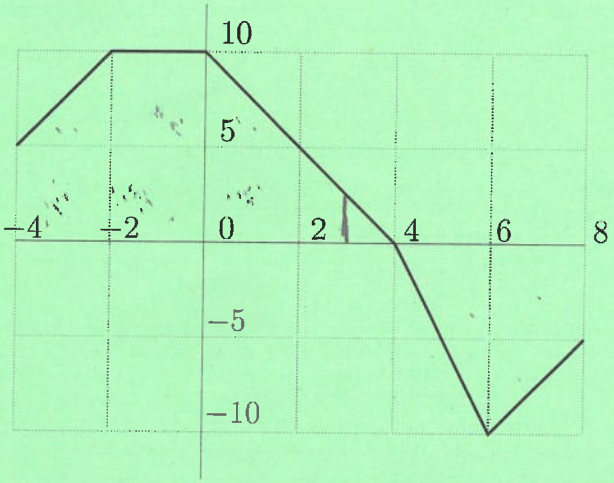
Mathematics 122

Quiz 28

Name: Kex

You must show your work to get full credit.



1 box = 2 x 5 = 10

1. For the function with graph given above compute the following (and remember that area below the x-axis counts as negative when computing an integral):

$4 + \frac{1}{2} + \frac{1}{2} + \frac{3}{8} = 5.375$ boxes
$= 53.75$

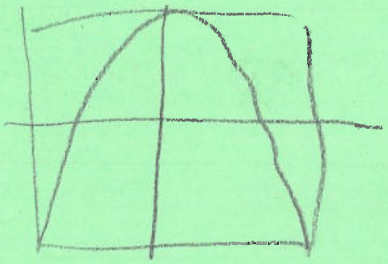
$\int_{-4}^{1} f(t)\,dt =$ 53.75

(7.5) − 2 = 5.5 boxes
= 55

$\int_{0}^{8} f(t)\,dt =$ 55

2. Use your calculator to graph the function $y = 9 - x^2$ for $-4 \le x \le 4$.

(a) Make a picture of the graph here:



(b) What is the area under the graph and over the x-axis for $-3 \le x \le 3$. Be sure to write down how you used the calculator to compute this.

2nd calc 7: $\int f(x)dx$
Lower limit = −3
Upper limit = 3

The area is 36