

## Mathematics 122

### Quiz #22

Name: \_\_\_\_\_

(1) Use your calculator to find  $\int_{-1}^3 (x^2 + x + 1) dx$

\_\_\_\_\_

(2) Use your calculator to find  $\int_{-3}^2 e^{x^2+1} dx$

\_\_\_\_\_

- (3) Use the interpretation of the integral as the area under the graph to explain why for any positive constant  $C$  and any  $a < b$  that

$$\int_a^b C dx = C(b - a).$$

HINT: Graph  $y = C$  and recall that you know how to find the area of a rectangle.