

**Quiz 3 – Your work must match the answer
chosen, otherwise no points**

Exercise 1: (5 points)

Assume that f is an even, continuous function for which:

$$\int_{-2}^2 f(x)dx = 6 \text{ and } \int_0^4 f(x)dx = 10$$

Find the value of the integral: $\int_2^4 f(x)dx$

- A) 4 B) 5 C) 6 D) 7 E) None of the answers are correct

Exercise 2: (5 points)

Assume that g is a continuous function

$$\text{if } \int_0^2 g(x)dx = 6 \text{ then } \int_2^3 2g(2t - 4)dt = ???$$

- A) 4 B) 5 C) 6 D) 7 E) None of the answers are correct

Exercise 3: (10 points)

Find the value of the definite integral: $\int_0^{\frac{3}{2}} \sqrt{9 - 4x^2} dx$

- A) $\frac{9\pi}{2}$ B) $\frac{9\pi}{4}$ C) $\frac{9\pi}{8}$ D) $\frac{9\pi}{16}$ E) None of the answers are correct

The exercises are ordered from easiest to hardest