

# BEYOND BELIEF FACT OF FICTION



a. [2 points] If  $\int_0^2 3f(x) + 1 \, dx = 8$ , then  $\int_0^2 f(x) \, dx = 2$ .

True

False

b. [2 points] If  $\int_a^b f(x) \, dx = 2$  and  $\int_a^b g(x) \, dx = -3$  then  $\int_a^b f(x)g(x) \, dx = -6$ .

True

False

d. [2 points] If  $\int_0^1 f(x) \, dx \leq \int_0^1 g(x) \, dx$  then  $f(x) \leq g(x)$  for  $0 \leq x \leq 1$ .

True

False

f. [2 points] If  $f(t)$  is measured in dollars per year, and  $t$  is measured in years, then  $\int_a^b f(t) \, dt$  is measured in dollars per years squared.

True

False