

# Lesson 61

1. a)  $\frac{22}{3}$

b)  $\frac{664}{15} \pi$

c)  $\frac{32}{3} \pi$

d)  $\int_0^k (6-y-y^2) dy = \int_k^2 (6-y-y^2) dy$

OR  
 $\int_0^k (6-y-y^2) dy = \frac{11}{3}$

2.  $\int_{\frac{\pi}{4}}^{\frac{3\pi}{4}} \sin x dx$

3.  $\int_2^{6.854} f(x) - g(x) dx + \int_{6.854}^{7.741} f(x) - h(x) dx$

4. a)  $x = .75$

b) 54.472

c) 3.364