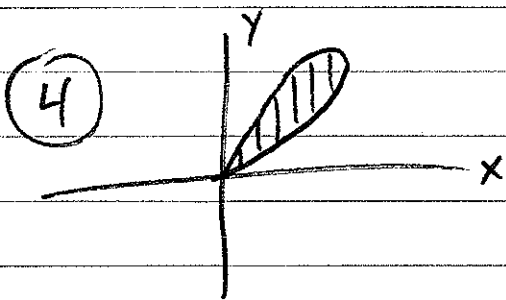


Midterm 3 Review Problems - Answers

- (1) (a) 207
(b) $2/3$
(c) $1 - \cos(1)$
(d) $\frac{1}{4}(e^{16} - 1)$
(e) $\frac{1}{8} \sin 256$
(f) $\pi(e^{-1} - e^{-4})$
(g) 0
(h) $\frac{1}{1080}$
(i) $\pi(1 - \sqrt{2}/2)$

(2) $11\pi/2$

(3) $\int_0^1 \int_2^4 [e^{2(u+2v)-6v} \cos((u+2v)6v)] 6 \, du \, dv$



(5) 3π

(6) $\pi/6(37^{3/2} - 17^{3/2})$ (7) $\pi/6(17^{3/2} - 1)$

(8) 384π (9) $\pi/12$

(10) $\frac{1}{2}(e - 1/e)$