

10.667

(37) $\int_0^5 \frac{x}{x^2+4} dx = 0.991$

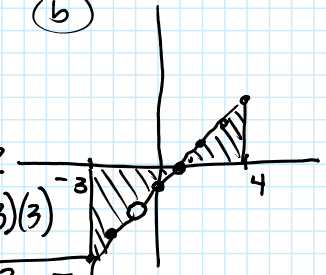
(38) $3 + 2 \int_0^{\frac{\pi}{3}} \tan x dx = 4.386$

(41) $\int_{-2}^3 \frac{x}{|x|} dx$ @ discontinuous @ $x=0$
 (b) $A = 2(-1) + 3(1) = 1$



(43) $\int_{-3}^4 \frac{x^2-1}{x+1} dx$ @ disc. at $x=-1$
 (b)

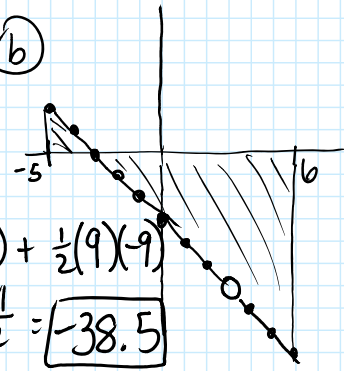
$f(x) = \frac{(x+1)(x-1)}{x+1}$
 R.D @ $x=-1$ $y=-2$
 $A = \frac{1}{2}(4)(-4) + \frac{1}{2}(3)(3) = -8 + \frac{9}{2} = -3.5$



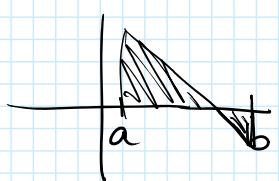
(44) $\int_{-5}^6 \frac{9-x^2}{x-3} dx$ @ disc @ $x=3$
 (b)

$f(x) = \frac{(3+x)(3-x)}{-(3-x)} = -3-x$
 R.D. at $(3, -6)$

$A = \frac{1}{2}(2)(2) + \frac{1}{2}(9)(-9) = 2 - \frac{81}{2} = -38.5$



(45) False



(47) $\int_2^5 f(x) dx = 18$ $\int_2^5 (f(x) + 4) dx = 18 + 4(5-2) = 18 + 12 = 30$

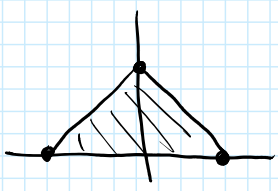
(E)

(46) True



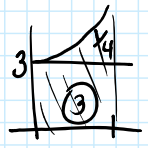
(48) $\int_{-4}^4 (4-|x|) dx = \frac{1}{2}(8)(4) = 16$

(D)



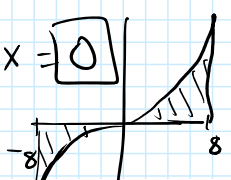
(49) (C) $\sum_{k=1}^n \sin(c_k) \frac{\pi}{n}$ (50) (A) (units)

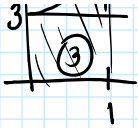
(52) $\int_0^1 (x^3+3) dx = 3\frac{1}{4}$



$\int_0^1 x^3 dx = \frac{1}{4}$ Given

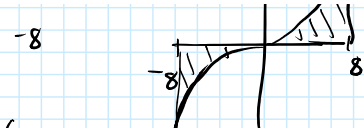
(58) $\int_{-8}^8 x^3 dx = 0$





$$\textcircled{54} \int_{-1}^1 |x|^3 dx = \boxed{\frac{1}{2}}$$

$$\textcircled{56} \int_{-1}^2 (|x|-1)^3 dx = \boxed{\frac{1}{4}}$$



(Symmetric so areas offset each other),

$$\textcircled{60} \int_0^1 \sqrt[3]{x} dx = \boxed{\frac{3}{4}}$$