	* Axis	
$f(x): x^3-3x+2$	×=-2 ×= [sub intervals
->	X= (J	1) 5
a). curve		b). 18Ft-Riemann
f(x): x3-3x	2	interval: $\frac{1-(-2)}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$
-2 6 × 62		6 2
	$(-2)^3 - 3(-2) + 2 = 0$:2 → 0.5
x f(x)	(-1)3-3(-1)+2 +4	x=-2,-1.5,-1,-0.5,0,0.5
-2 0 '	$(0)^3 - 3(0) + 2 = 2$	
-1 4	$(1)^3 - 3(1) + 2 = 0$	f(-2):0
0 2 /		1(-1.5): (-1.5)3-3(1.5)+2: 3.125
1 0 /	$(2)^3 - 3(2) + 2 = 4$	f(-1): (-1)3-3(-1)+2=4
2 4		$f(-0.5): (-0.5)^{3}-3(-0.5)+2:3.375$
5		f(0): 2
1	×	$f(0.5): (2)^3 - 3(2) + 2:$ $f(0.5)^3 - 3(0.5) + 2: 0.625$
(3)		(0.5) -3 (0.7) +2 : 0.823
2		trea: interval x sum of AN
		0.5 x (0+3.125+4+3.3+5+2+0.625)
-3 -2 -1 0 1	2 2 '	6.5625
		. 6.700
c). Right - Riemai	nn d).	Mid - Riemann
c). Right - Rieman		Mid - Riemann Xi & X & Xii
interval: 1-(-2) 3 = 1 = 0.5	Xi & X & Xii
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$	$\frac{7}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$	
interval: 1-(-2	$\frac{7}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$	$x_i \le x \le x_{ii}$ $\frac{-2 + (-1.5)}{2} = -1.75$ $x_{ii} = \frac{0.5 + 1}{2} : 0.75$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$	$\frac{7}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$	$x_{i} \le x \le x_{ii}$ $= -2 + (-1.5) = -1.75 \qquad x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$
interval: $\frac{1-(-2)}{6}$:2 > 0.5 x: -2, -1.5, -1, f(-2): 0	$\frac{7}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$	$x_i \le x \le x_{ii}$ $\frac{-2 + (-1.5)}{2} = -1.75$ $x_{ii} = \frac{0.5 + 1}{2} : 0.75$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ x: -2, -1.5, -1, f(-2): 0 f(-1.5): 3.125	$\frac{7}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$	$x_{i} \le x \le x_{ii}$ $= -2 + (-1.5) = -1.75 \qquad x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \Rightarrow 0.5$ x: -2, -1.5, -1, f(-2): 0 f(-(-5): 3.125 f(-1): 4	$\frac{7}{6} = \frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-1)$	$x_{i} \le x \le x_{ii}$ $= -2 + (-1.5) = -1.75 \qquad x_{ii} = \frac{0.5 + 1}{2} : 0.75$ $x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ x: -2, -1.5, -1, f(-2): 0 f(-(-1.5): 3.125 f(-1): 4 f(0.5): 3.375	$\frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-1)$	$x_{i} \leq x \leq x_{ii}$ $= -2 + (-1.5) = -1.75 \qquad x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $10 \leq t_{0.5} + 0.5 + 0.5 + 0.5$ $1.75) : (-1.75)^{3} - 3(1.75) + 2 = 1.8906$
interval: $\frac{1-(-2)}{6}$ $2 \cdot -2 \rightarrow 0.5$ $2 \cdot -2 \cdot -1.5 \cdot -1$, $4 \cdot -2 \cdot 0 \cdot $	$\frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-1)$	$x_{i} \leq x \leq x_{ii}$ $= -2 + (-1.5) = -1.75 \qquad x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $1.75) : (-1.75)^{3} - 3(1.75) + 2 = 1.8906$ $1.25) : (-1.25)^{3} - 3(1.25) + 2 = 3.7969$
interval: $\frac{1-(-2)}{6}$ $22 \rightarrow 0.5$ 22, -1.5, -1	$\frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-1)$ $f(-1)$ $f(-1)$	$x_{i} \leq x \leq x_{ii}$ $\frac{1}{2} = -1.75 \qquad x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $x_{i} = \frac{0.5 + 1}{2$
interval: $\frac{1-(-2)}{6}$ $2 \cdot -2 \rightarrow 0.5$ $2 \cdot -2 \cdot -1.5 \cdot -1 \cdot -1$ $4 \cdot -2 \cdot -1.5 \cdot -1 \cdot -1$ $4 \cdot -1.5 \cdot -1.5 \cdot -1$ $4 \cdot -1.5 \cdot -1.5 \cdot -1$ $4 \cdot -1.5 \cdot -1.5 \cdot -1$	$\frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-1)$ $f(-1)$ $f(-1)$	$x_{i} \le x \le x_{ii}$ $= \frac{-2 + (-1.5)}{2} = -(.75) \times x_{ii} = \frac{0.5 + 1}{2} : 0.75$ $= (.75) \times x_{i} = \frac{0.5 + 1}{2} : 0.75$ $= (.75) \times x_{i} = \frac{0.5 + 1}{2} : 0.75$ $= (.75) \times x_{i} = \frac{0.5 + 1}{2} : 0.75$ $= (.75) \times (-1.75)^{3} - 3(1.75) + 2 = 1.8906$ $= (.75) \times (-1.25)^{3} - 3(1.25) + 2 = 3.7969$ $= (.75) \times (0.75)^{3} - 3(-0.75) + 2 = 3.8281$ $= (.75) \times (-0.25)^{3} - 3(-0.25) + 2 = 2.7344$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ $\chi: -2, -1.5, -1,$ f(-2): 0 f(-1.5): 3.125 f(-1): 4 f(0.5): 3.375 f(0): 2 f(0): 2 f(0): 0.625	$\frac{3}{6} = \frac{1}{2} = 0.5$ $\frac{3}{6} = \frac{1}{2} = 0.5$ $\frac{7}{6} = \frac{1}{2} = 0.5$	$x_{i} \le x \le x_{ii}$ $= \frac{-2 + (-1.5)}{2} = -1.75 \qquad x_{ii} = \frac{0.5 + 1}{2} : 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.25, 0.25$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ $\chi: -2, -1.5, -1,$ f(-2): 0 f(-1.5): 3.125 f(-1): 4 f(0.5): 3.375 f(0): 2 f(0): 2 f(0): 0.625	$\frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-6)$ $f(-$	$x_{i} \leq x \leq x_{ii}$ $= \frac{-2 + (-1.5)}{2} = -(.75) \times x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.75, -0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.25, 0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.25, 0.25$ $= x_{i} = -1.75, -0.75, -0.25$ $= x_{i} = -1.75, -0.75, -$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ $\chi: -2, -1.5, -1,$ f(-2): 0 f(-1.5): 3.125 f(-1): 4 f(0.5): 3.375 f(0): 2 f(0): 2 f(0): 0.625	$\frac{3}{6} = \frac{1}{2} = 0.5$ $-0.5, 0, 0.5$ $f(-6)$ $f(-$	$x_{i} \leq x \leq x_{ii}$ $= -\frac{2 + (-1.5)}{2} = -(.75) \qquad x_{i} = \frac{0.5 + 1}{2} : 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, +0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, +0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, +0.25, 0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, +0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.75, -0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25$ $= x = -1.75, -1.25, -0.75, -0.25, 0.25$ $= x = -1.75, -1.25, -0.75$ $= x = -1.75, -1.25, -1.25$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ x: -2, -1.5, -1, f(-2): 0 f(-1.5): 3.125 f(-1): 4 f(0.5): 3.375 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$x_{i} \leq x \leq x_{ii}$ $= -\frac{2 + (-1.5)}{2} = -(.75) x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25$ $\therefore x = -1.75, -1.25, -0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.25$ $\therefore x = -1.75, -1.25$ $\therefore x = -1.75, -1.25$ $\therefore x = -1.75, -1.25, -1.25$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ x: -2, -1.5, -1, f(-2): 0 f(-1.5): 3.125 f(-1): 4 f(0.5): 3.375 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2	$\frac{3}{6} = \frac{1}{2} = 0.5$ $\times = 0.5, 0, 0.5$ $f(-6) = f(-6) = $	$x_{i} \leq x \leq x_{ii}$ $ = \frac{-2 + (-1.5)}{2} = -(.75) $ $x_{i} = \frac{0.5 + 1}{2} : 0.75$ $ = \frac{0.75}{2} : 0.75$ $ = \frac{0.75}{2} : 0.75$ $ = \frac{0.75}{2} : 0.75$ $ = \frac{0.5 + 1}{2} : 0.75$ $ = \frac{0.75}{2} : 0.75$ $ = \frac{0.75}{2$
interval: $\frac{1-(-2)}{6}$ $\therefore -2 \rightarrow 0.5$ x: -2, -1.5, -1, f(-2): 0 f(-1.5): 3.125 f(-1): 4 f(0.5): 3.375 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2 f(0): 2	$\frac{3}{6} = \frac{1}{2} = 0.5$ $\times = 0.5, 0, 0.5$ $f(-6) = f(-6) = $	$x_{i} \leq x \leq x_{ii}$ $= -\frac{2 + (-1.5)}{2} = -(.75) x_{ij} = \frac{0.5 + 1}{2} : 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25, 0.75$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25$ $\therefore x = -1.75, -1.25, -0.75, -0.25$ $\therefore x = -1.75, -1.25, -0.25, 0.25$ $\therefore x = -1.75, -1.25, -0.25$ $\therefore x = -1.75, -1.25$ $\therefore x = -1.75, -1.25$ $\therefore x = -1.75, -1.25, -1.25$