$$(\ )=\begin{cases}\cos(\frac{\pi}{4}\ )+1, & \le 2\\ \frac{\ ^{2}}{2}+\ -3, & >2\end{cases}$$

$=2$

$( ) = {}^{3}e^{-} - 1 \qquad \geq 0$

$(\ )=\ (\ )+\int\ '(\ )d$

$\in[\ ,\ ]$

$(\ )=\ +\int\ (\ )d$

[illegible]

[illegible]

[illegible]

[illegible] $'(\ )$ [illegible] $[\ _0,\ _n]$ [illegible]

$_0,\ _1,\ _2,\cdots,\ _n$ [illegible] $\int_0^n \ '(\ )d$ [illegible]

[illegible]

$$\int_0^n \ '(\ )d \approx \ '(\ _0)\cdot(\ _1-\ _0)+\ '(\ _1)\cdot(\ _2-\ _1)+\ '(\ _2)\cdot(\ _3-\ _2)+\ldots+\ '(\ _{n-1})\cdot(\ _n-\ _{n-1})$$

[illegible]

$$\int_0^n \ '(\ )d \approx \ '(\ _1)\cdot(\ _1-\ _0)+\ '(\ _2)\cdot(\ _2-\ _1)+\ '(\ _3)\cdot(\ _3-\ _2)+\ldots+\ '(\ _n)\cdot(\ _n-\ _{n-1})$$

[illegible]

[illegible] $'(\ )$ [illegible] $[\ _0,\ _n]$ [illegible]

$_0,\ _1,\ _2,\cdots,\ _n$ [illegible] $\int_0^n \ '(\ )d$ [illegible]

$$\int_0^n \ '(\ )d \approx \frac{\ '(\ _0)+\ '(\ _1)}{2}\cdot(\ _1-\ _0)+\frac{\ '(\ _1)+\ '(\ _2)}{2}\cdot(\ _2-\ _1)+$$

$$\frac{\ '(\ _2)+\ '(\ _3)}{2}\cdot(\ _3-\ _2)+\ldots+\frac{\ '(\ _{n-1})+\ '(\ _n)}{2}\cdot(\ _n-\ _{n-1})$$

[illegible]

$0 \leq \quad \leq 12$

[illegible]

[illegible] $F(\ )=\int (\ )\ d$ [illegible]

[illegible] $F(\ );\ (\ );\ '(\ )$ [illegible]

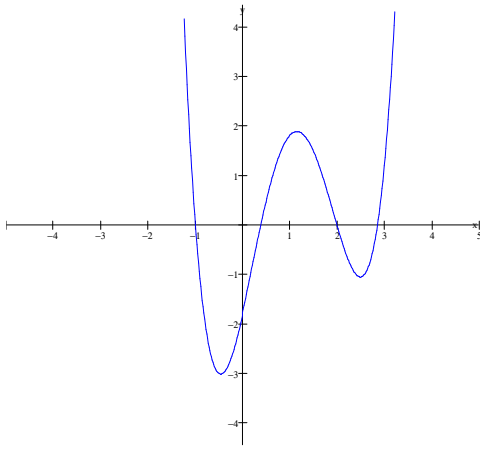
[illegible]

[illegible]

[illegible]]T [illegible]

$\frac{dy}{d} = y(\quad -1)$

( )< ( )→ <



[illegible]

[illegible] $\lim_{\to 2^-} \cos(\frac{\pi}{4} \;)+1 = \cos \frac{\pi}{2} + 1 = 1$

$\lim_{\to 2^+} \frac{\;^2}{2} + \; -3 = 2+2-3 = 1$

[illegible] $(2) = 1$

[illegible] $\lim_{\to 2} (\;) = (2)$

[illegible] $= 2$

[illegible]

$(4) = .172 > 0$
$(4) = \;'(4) = -.293 < 0$

[illegible] $= 4$ [illegible]

[illegible]

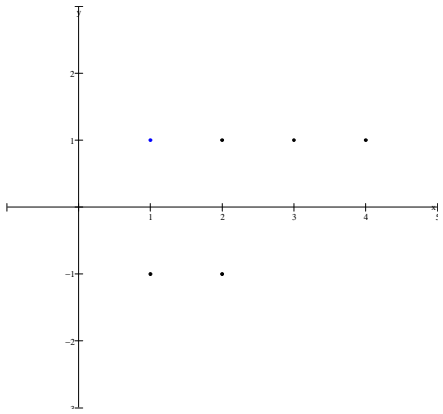
[illegible]

$$\int_0^2 \left|(\quad 2)\sin(\quad)\right|$$

$$\int_0^{10} F(\ )\, d\ = 12.970 \text{ thousand gallons}$$

$$\int_0^{5} F(\ )\, d$$

$$\frac{1}{5}\int_0^{5} F(\ )\, d$$


y
2
1
−1
−2
1
2
3
4
x