

$$1. \sin \frac{x}{3} = \frac{1}{2}, \quad \cancel{\sin \frac{x}{3} = \sin}$$

$$\frac{x}{3} = (-1)^k \arcsin \frac{1}{2} + 2\pi k \quad X_1 = \frac{\pi}{6} + 2\pi k \quad k \in \mathbb{Z}$$

$$X_2 = \frac{5\pi}{6} + 2\pi k$$

$$3. \quad S = t^2 - 8t + 4 \quad v = S' = 2t - 8 \quad v(10) = 12$$

$$t = 10 \text{ c} \quad a = v' = 2 - \text{const} \quad a(10) = 2$$

$$2. \quad C = 2\pi R = 3 \quad R = \frac{1.5}{\pi}$$

$$S_{\text{бок}} = ? \quad h = 2 \quad S_{\text{бок}} = C \cdot h = 6$$

$$4. \quad y = x^3 - 3x^2 + 1 \quad y' = 3x^2 - 6x$$

$$D(y) = \mathbb{R} \quad y' = 0 \quad x_1 = 0, \quad x_2 = 2$$

x	$-\infty; 0$	0	$0; 2$	2	$2; +\infty$
y'	+	0	-	0	+
y		1		-3	

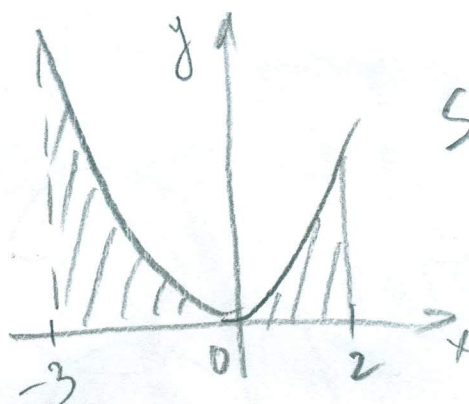
$\nearrow$ возр. $\searrow$ max $\nearrow$ возр. min $\searrow$ возр.

$$5. \quad y = x^2$$

$$y = 0$$

$$x = 2$$

$$x = -3$$



$$S = \int_{-3}^2 x^2 dx = \left. \frac{x^3}{3} \right|_{-3}^2 =$$

$$= \frac{8}{3} + 9 = 11 \frac{1}{3} \text{ кв. ед.}$$