

نام و نام خانوادگی: حبیب‌الله زاهدی پاسخنامه تشریحی تکلیف شماره ۱۳۰۰ کلاس: پایه دهم

$$g(x) = (a-1)x^2 + x + 3$$

$$x \geq 4$$

$$(x-4)(x+2) \geq 0$$

$$x^2 - 2x - 8 \geq 0$$

$$x \geq 2 \rightarrow \frac{x+9x}{2} \geq 2$$

$$S \geq \varepsilon \rightarrow \frac{-1}{a-1} \geq \varepsilon \rightarrow -1 \geq \varepsilon(a-1)$$

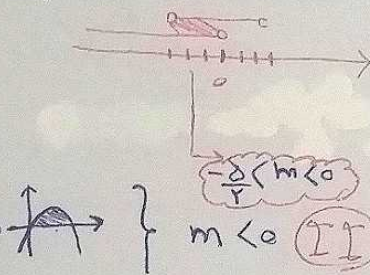
$$a \geq \frac{1}{1-\varepsilon} \rightarrow 0.18 \geq a \rightarrow (0.18) x^2 + x + 3 \geq 0$$

$$f(x) = mx^2 - 8x + m$$

$$\Delta \geq 0 \rightarrow 64 - 4m^2 \geq 0 \rightarrow 16 \geq m^2 \rightarrow \frac{4}{m} \geq m$$

$$\frac{4}{m} \geq m \rightarrow \frac{4}{m} - m \geq 0$$

x	x ₁	x ₂
f(x)	-	+
m	!	!



$$-\frac{4}{m} < m < 0$$

$$x = \frac{3 \pm \sqrt{5}}{2} \rightarrow \frac{3+\sqrt{5}}{2} \rightarrow \frac{3-\sqrt{5}}{2}$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$(3x - 3 \pm \sqrt{5})^2 \rightarrow 9x^2 - 18x + 9 \pm 6\sqrt{5}x - 6\sqrt{5} \pm 5 \rightarrow 9x^2 - 18x + 14 \pm 6\sqrt{5}x - 6\sqrt{5} = 0$$

$$2x^2 - 18x + m + 2 \geq 0 \rightarrow S \geq \varepsilon \rightarrow p \geq \frac{m+2}{2}$$

$$4x^2 - 18x + 14 \pm 6\sqrt{5}x - 6\sqrt{5} \pm 5 \geq 0 \rightarrow 4x^2 - 18x + 19 \pm 6\sqrt{5}x - 6\sqrt{5} \pm 5 \geq 0$$

$$3a^2 + b^2 \geq 12 \rightarrow (3a^2 + b^2) + a^2 - b^2 \geq 12$$

$$m^2 - 18m + 14 \geq 0 \rightarrow (m-9)^2 \geq 61$$

$$b^2 - 4ac \geq (m-1)^2$$

$$(m-9)^2 \geq 61 \rightarrow m \geq 9 + \sqrt{61}$$

$$m \geq 1$$

$$14 - m - 2 \pm 6\sqrt{5} \geq 0 \rightarrow 12 - m \pm 6\sqrt{5} \geq 0$$

$$12 - m \pm 6\sqrt{5} \geq 0 \rightarrow 12 - m \geq -6\sqrt{5} \rightarrow m \leq 12 + 6\sqrt{5}$$

$$S(2, 9)$$

$$-\frac{b}{2a} \geq \frac{1}{2} \rightarrow b \geq -a$$

$$C \geq 8$$

$$C - \frac{b^2}{4a} \geq 9 \rightarrow \Delta - \frac{b^2}{4a} \geq 9 \rightarrow \frac{b^2}{4a} \geq -9 \rightarrow \frac{b^2}{4a} \geq -9$$

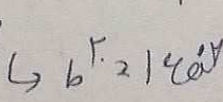
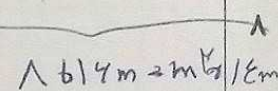
$$ax^2 + bx + c > 0$$

$$(-1, 5)$$

$$-x^2 + 6x + 8 \leftarrow b \geq 4 \rightarrow x \geq 1.25$$

B70 $\rightarrow a < 0 \rightarrow a = -r$
 $-r \beta_2 = -r$ $\beta_2 = 1$

$$m^r \text{ by } m - 120 \rightarrow (m + e)(m - r)$$



$$\Delta \rightarrow (\varepsilon_{ab})^\dagger \varepsilon_\alpha (\gamma^{ab})^\dagger \rightarrow \underbrace{\gamma^a \gamma^b \gamma^a \gamma^b}_{\varepsilon_a \gamma^a \wedge \gamma^a + \varepsilon_b \gamma^b}$$

$\frac{a^2 b^2 a^2}{(a^2)^2}$
 $\forall a \in \mathbb{R}$