Given $\mu = \mu_0 \quad \sigma^2 = \sigma_0^2$

then $E\left(\frac{X-\mu_0}{\sigma_0}\right) = 0 \quad Var\left(\frac{X-\mu_0}{\sigma_0}\right) = 1.$

$$\Rightarrow \quad \frac{X-\mu_0}{\sigma_0} \xrightarrow{D} N(0,1)$$

$$\Rightarrow \quad X \xrightarrow{D} N(\mu_0, \sigma_0)$$

$$\begin{aligned} \hat{c} d_1 + c_2 d_2 &= \hat{c}k + (c_2 - \hat{c}) d_2 \\ &= \hat{c}k + (-2c_1 p + 2c_2 p) d_2 \\ &= \hat{c}k + 2p(c_2 - c_1) d_2 \end{aligned}$$

$$c_2 - 2p(c_2 - c_1) = \hat{c}$$

$$c_2 - \hat{c} = 2p(c_2 - c_1).$$

$$p - (\hat{c} - c_0)k - (c_2 - \hat{c}) d_2 \leq 0.$$

$$p - (2c_1 p + c_2(1-2p) - c_0)k \qquad >$$

$$k(c_2 p - c_1 p + c_0) + \omega$$

$$\frac{1}{4k}\left(2k[(2p-1)p - c_0] + 2p - 3\right).$$

$$4kx^2-2kx+2x-2kC_0-3$$

$$4kx^2+2(k-1)x-2kC_0-3=0.$$

$$\frac{-2(k-1)\pm\sqrt{4(k-1)^2+16k(2kC_0+3)}}{8k}$$

$$\frac{1-k\pm\sqrt{(k-1)^2+4k(2kC_0+3)}}{4k}$$

$$k^2+1-2k+8C_0k^2+12k$$

$$\underline{(8C_0+1)k^2+10k+1}$$

$$\frac{P}{k}\left(1-\frac{x}{\alpha}\right)(Ax+P)\,dx.$$

$$-\frac{A}{\alpha}x^2+\left(A-\frac{P}{\alpha}\right)x+P$$

$$-\frac{A\alpha^2}{3}+\frac{\left(A-\frac{P}{\alpha}\right)\alpha^2}{2}+P\alpha$$

$$\frac{-2A\alpha^2+3A\alpha^2-3\alpha P}{6}$$

$$\frac{A\alpha^2-3\alpha P}{6}+P.$$

$$\frac{P}{k}\left(\frac{[(2P-1)P-C_0]k^2-Pk}{6}+\frac{Pk}{2}\right)$$

$$2P^3-P^2-C_0P$$

$$-\frac{P[(2P-1)P-C_0]k+2P^2}{6}$$

$$+[(2P-1)P-C_0]\frac{k}{2}+\frac{P}{2}$$

$$\frac{1}{2}+(4P-1)\frac{k}{2}-\frac{1}{6}(4P+(6P^2-2P-C_0)k)$$

$$k\,\frac{12P-3-6P^2+2P+C_0}{6}-\frac{2}{3}P$$

$-6k x^2$ $\qquad \dfrac{-8p^2+4p+4c_0}{6}$

$$1-\frac{2}{3}p+\frac{-4p^2+2p+2c_0}{3}k \leq 0.$$

$$\frac{1}{2}+\frac{-2p^2-10p+3c_0+3}{6}k \geqslant$$

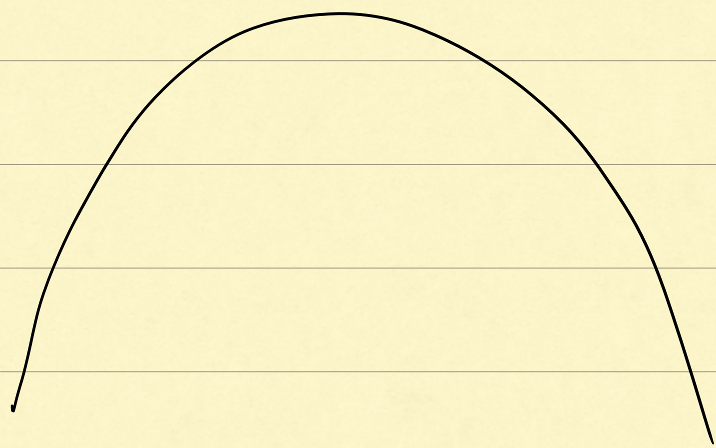
$-4p-10$

$$\frac{-\frac{1}{2}-5+3c_0+3+\frac{3}{2}}{6}k$$

$$-\frac{2}{3}p \leq -1+\frac{1}{6}k(8p^2-4p-4c_0)$$

$$p \geqslant \frac{3}{2}-k(2p^2-p-c_0).$$

$$\le \frac{k}{6}(2p^2+10p-3c_0) - \frac{1}{2}$$



$$-1.5+7+c_0-3$$

$$\frac{2.5+c_0}{6}k - \frac{1}{3} + \frac{1}{2}$$

$$\frac{-6+14+c_0-3}{6}k - \frac{2}{3}$$

$$+\frac{1}{2}$$

$$\frac{5+c_0}{6}k - \frac{1}{6}$$

$$\frac{(5+c_0)k-1}{6}$$

$$\frac{(1-c_0)k-1}{3} + \frac{1}{2}$$

$$\frac{-c_0 k - \frac{1}{2}}{6} + \cancel{\frac{-\frac{1}{4} + \frac{1}{4}}{2}}$$

$$+\frac{1}{4}$$

$$\frac{}{12}$$

$$\frac{1 - 6k}{6}$$

$$k(1 - c_0) - \frac{1}{2} \geq 0.$$

$$(k+1)\left[\frac{1}{4} - c_f\right].$$

$$k c_f$$

$$\frac{k+1}{4} \qquad \frac{3}{4}$$