

$$\mu = 620 \text{ mg} \quad \sigma = 38 \text{ mg}$$

1. Mean daily intake:  $2\mu = \underline{1240 \text{ mg}}$

standard deviation:  $\sqrt{\sigma_1^2 + \sigma_2^2} = \underline{53.74 \text{ mg}}$

2.  $P(X > 1350) = 1 - P(X \leq 1350)$

$$= 1 - \Phi\left(\frac{1350 - 1240}{53.74}\right)$$

$$\approx 1 - \Phi(2.047)$$

$$\approx 1 - \Phi(2.05)$$

$$= 1 - 0.9798$$

$$\boxed{= 0.0202}$$