3.7.2009 SEI / OVRS

2) $m_x = \mu + \frac{\gamma}{\alpha} = 52.88608$ $\gamma = 0.577216$

$\sigma_x^2 = \frac{\pi^2}{6\alpha^2} = 41.12335$

$\sigma_x = \sqrt{\sigma_x^2} = 6.412749$

$E[X] = m_x = \underline{52.886}$

$var[X] = \sigma_x^2 = \underline{41.123}$

$E[Y] = E[X+X^2] = E[X] + E[X^2] = E[X] + var[X] + E[X]^2$

$var[X] = E[X^2] - E[X]^2 \Rightarrow E[X^2] = var[X] + E[X]^2$

$E[Y] = 52.88608 + 41.12335 + 52.88608^2 = \underline{2890.95}$