

Random Variables: X Y Z Suppose “a”, “b” “c”,
 Mean Variables: μ_x μ_y μ_z and “d” are just
 constants

Std Dev Variables: σ_x σ_y σ_z

Let: $W = X + Y - Z$
 (combining)

Mean $\mu_W = \mu_x + \mu_y - \mu_z$

Variance $\sigma_W^2 = \sigma_x^2 + \sigma_y^2 + \sigma_z^2$

Standard Deviation $\sigma_W = \sqrt{\sigma_x^2 + \sigma_y^2 + \sigma_z^2}$ “X” “Y” & “Z” must
 be independent!!!!

Let: $F = a + bX$
 (conversion)

Mean $\mu_F = a + b\mu_x$

Variance $\sigma_F^2 = b^2 \sigma_x^2$

Std Dev: $\sigma_F = b\sigma_x$