1. Let X_1, X_2, X_3 be independent normal random variables. X_1 is normal $N(0,4)$, X_2 and X_3 are both normal $N(0,9)$. Compute

$$P\{\frac{X_1}{(X_2^2 + X_3^2)^{1/2}} \le .7\}$$

using one of the enclosed tables.

$$P\left(\frac{\frac{X_1}{2}}{\sqrt{\frac{X_2^2 + X_3^2}{9(2)}}} \le \frac{.7(3)\sqrt{2}}{2} \right)$$

$$= P\left(t(2) \le \frac{.21}{\sqrt{2}} \right) < 0.6$$