

1. Let X_1 and X_2 be two independent random variables. X_1 is normal $N(1, 1)$ and X_2 is normal $N(0, 2)$. Compute

$$P\{X_1 + 2X_2 \leq 6\}$$

using one of the enclosed tables.

2. Let X_1, X_2, X_3 be independent identically distributed normal $N(0, 6)$ random variables. Find c such that

$$P\{X_1^2 + X_2^2 + X_3^2 \leq c\} = .95$$

using one of the enclosed tables.