

3. (2) Suppose A, B, C are sets in a sample space S . Assume that A, B , and C are three distinct subsets of S . Is the following possible?

$$p(A) = p(B) = p(C) = .78$$

If yes, given an example, a Venn diagram suffices. If no, give a clear explanation as to why not.

4. (2) If we expand the expression $(x_1 - 3x_2 + x_3 + 7x_4)^{19}$, what is the coefficient of the term $x_1^4 x_2^3 x_3^5 x_4^7$?