

# Advanced Mathematical Statistics: Assignment 2

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**Problem 4.2.**

a)  $f(x_1, x_2) = \frac{1}{2\pi\sqrt{1.5}} \times \exp\{-\frac{2}{3}[(\frac{x_1}{\sqrt{2}})^2 + (x_2 - 2)^2 - (\frac{x_1}{\sqrt{2}})(x_2 - 2)]\}$

b)

c)

**Problem 4.3.**

**Problem 4.4.**

**Problem 4.5.**

**Problem 4.6.**

**Problem 4.7.**

**Problem 4.10.**

**Problem 4.11.**

**Problem 4.12.**

**Problem 4.13.**

**Problem 4.14.**

**Problem 4.15.**

**Problem 4.16.**

**Problem 4.17.**

**Problem 4.18.**

**Problem 4.19.**

**Problem 4.20.**

**Problem 4.21.**