Ex. 3.8 : the best estimator , The conditional mean of the sum of two RV’s

Given: are independent ,

Find

1. Find
2. Find

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 0 | 0 | 0 |  |
|  | 1/2(z+1/2) |  |  |  |
|  | 1/2 |  | 1 |  |
|  | 1/2(5/2-z) |  |  |  |
|  | 0 | 0 | 0 |  |

2.2 Find

2.3 Find

2.4 Calculate

1. Compare and
2. Example.

In general, we do not know , we know as ,

Then we may estimate the man’s temperature so the measured temperature = 39 degree, then man’s temperature as degree…..It is NOT the deterministic number!!

What is the best estimated temperature for

If a measured temperature is 41 degree, what is the man’s temperature?