

Assignment

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Question 11.16.3.31

The probability that a student will pass his examination is 0.73, the probability of the student getting a compartment is 0.13, and the probability that the student will either pass or get compartment is 0.96. State True or False.

Solution:

RV	Values	Description
X	0	Not passing exam
	1	Passing exam
Y	0	Not getting compartment
	1	getting compartment

TABLE I

RANDOM VARIABLE DECLARATION.

Given,

$$\Pr(X = 1) = 0.73 \quad (1)$$

$$\Pr(Y = 1) = 0.13 \quad (2)$$

Also,

$$\Pr(X = 1 + Y = 1) = 0.86 \quad (3)$$

Hence, The statement is False