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2. The random variable X has probability distribution

x	-1	0	1
$P(X = x)$	0.2	0.4	0.4

Samples of size 2 are selected at random from the distribution and the random variable T is the sum of the 2 values of X.

(a) Show that $P(T = 0) = 0.32$

(2)

(b) Find the sampling distribution of T.

(4)

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Question 2 continued

Q2

(Total 6 marks)