1: The discrete random variable X has probability distribution

x	1	2	3	4
$\mathbf{P}(X = x)$	0.3	0.2	0.35	0.15

(a) Find F(3.5)

(1)

(b) Find $P(3X - 3 < X + 2)$

(2)

(c) Find $E(X)$

(2)

(d) Show that $Var(X) = 1.1275$

(3)

(e) Find $Var(5 - 2X)$

(1)

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Question 1 continued

(Total for Question 1 is 9 marks)