6. The random variable $Y \sim B(225, p)$

Using a normal approximation, the probability that Y is at least 188 is 0.1056 to 4 decimal places.

(i) Show that p satisfies $145p^2 - 241p + 100 = 0$ when the normal probability tables are used.

(ii) Hence find the value of p, justifying your answer.

(10)

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Question 6 continued

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Question 6 continued

(Total for Question 6 is 10 marks)

TOTAL FOR PAPER: 75 MARKS

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