Topic : Normal Distributions and Normal Apporixations

George throws a ball at a target 15 times.
Each time George throws the ball, the probability of the ball hitting the target is 0.48

The random variable X represents the number of times George hits the target in 15 throws.

(a) Find

   (i) P(X = 3)
   (ii) P($X \geq 5$)

(3)

George now throws the ball at the target 250 times.
(b) Use a normal approximation to calculate the probability that he will hit the target more than 110 times.

(3)

(Total for question = 6 marks)