17 An archer is training for the Olympics.

Each of the archer's training sessions consists of 30 attempts to hit the centre of a target.

The archer consistently hits the centre of the target with 79% of their attempts.

It can be assumed that the number of times the centre of the target is hit in any training session can be modelled by a binomial distribution.

17 (a) Find the mean of the number of times that the archer hits the centre of the target during a training session.

[1 mark]

17 (b) Find the probability that the archer hits the centre of the target exactly 22 times during a particular training session.

[1 mark]

17 (c) Find the probability that the archer hits the centre of the target 18 times or less during a particular training session.

[1 mark]

17 (d) Find the probability that the archer hits the centre of the target more than 26 times in a training session.

[2 marks]