Question 1   **(5 marks)**

Hanai is a successful college basketball player. His coach has warned him that he will lose his scholarship if he scores 54% or below on a weekly assessment. On his first three weekly assessments he scored 84%, 81% and 78% respectively.

Assume Hanai's weekly assessments continue to follow this pattern.

(a)   Deduce a rule for the nth term of this sequence.   (2 marks)

(b)   Determine Hanai's score on his sixth weekly assessment.   (1 mark)

(c)   Predict when Hanai will lose his scholarship.   (2 marks)