22 The diagram shows a hexagon *ABCDEF*.
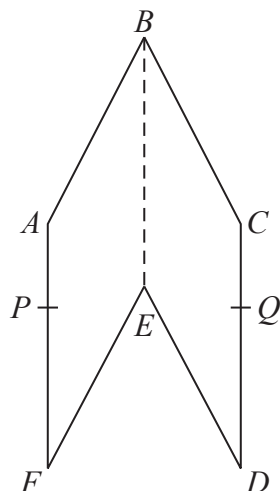
ABEF and *CBED* are congruent parallelograms where $AB = BC = x$ cm.
P is the point on *AF* and *Q* is the point on *CD* such that $BP = BQ = 10$ cm.

Given that angle $ABC = 30°$,

prove that $\cos PBQ = 1 - \dfrac{(2 - \sqrt{3})}{200}x^2$

(Total for Question 22 is 5 marks)

TOTAL FOR PAPER IS 80 MARKS