

ACTIVITY OF INTEGRATION

Quadratic equations

Due to land wrangles in the community, an old lady was advised to hire a land surveyor in order to measure her land and fence it to avoid intruders.

The land is rectangular and after measurements the surveyor discovered that the length of a rectangular area of land is 10 feet longer than its width and the overall area is 240 square feet.

TASK

As a S.3 mathematician, help the old lady to know the dimensions of the land for proper planning while fencing

PROBABILITY

Mike was asked by his mathematics teacher to assist him with two mathematics books. He randomly picked two books one at a time without replacement from his bag that had 2 mathematics books and 3 chemistry books and gave them to the teacher. Without checking the teacher moved back to the staffroom.

On an important note, Mike wishes to do physics, chemistry and mathematics at his A level or one of them. If according to the teacher's recommendations, the chance that he can do at least two of them is greater than 0.5, he will do all of them and if it's less,

he will choose one only which will be the most recommended one by his teachers.

He got a recommendations from 30 teachers. 13 recommended physics,

11 recommended mathematics and 17 recommended chemistry. 3 teachers recommended mathematics and physics, 5 recommended physics and chemistry, 4 recommended mathematics and chemistry and some recommended all the three subjects

TASK

(a) What is the probability that Mike gave his teacher a combination of books different from what he asked for.

(b) Will Mike do all the 3 subjects or choose only one (justify your answer)