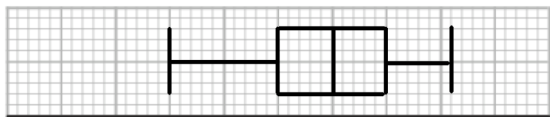




Solve the inequality

$$5x^2 < 45$$



0      30      60      90      120      150  
Mass, grams

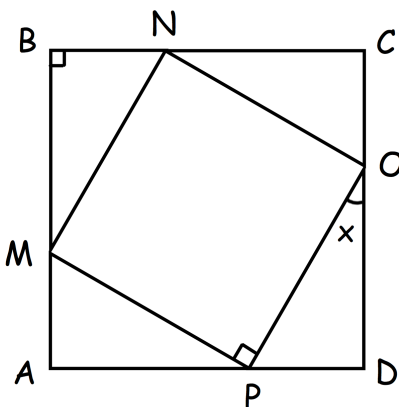
The box plot shows information about the masses of apples in a box

Jack picks three apples at random, one at a time, replacing each before picking the next.

Find the probability that he chooses two over 90g and one under 75g.

The minimum point of a quadratic graph in the form  $y = x^2 + ax + b$  is  $(-2, -10)$ .

Find  $a$  and  $b$ .



$ABCD$  and  $MNOP$  are squares.

Prove triangles  $POD$  and  $MAP$  are congruent.