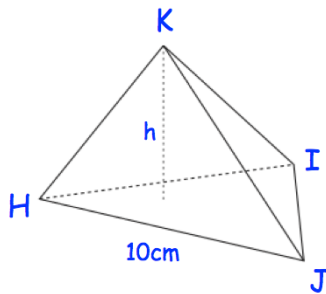




A, B and C have coordinates
(2, 9), (5, -3) and (6, k) respectively.

AB is perpendicular to AC

Find k



HIJK is a triangle based pyramid.
The base HIJ is an equilateral triangle
with side 10cm.
The volume of the pyramid is 300cm^3 .
Calculate the perpendicular height, h ,
of the pyramid.

The point $(-6, -7)$ is the turning point
of the graph $y = x^2 + ax + b$

Find a and b

C and D are two independent events

$$P(C) = 0.6$$

$$P(D') = 0.3$$

Find $P(C \cap D)$

Show

$$\frac{3 - \sqrt{32}}{1 + \sqrt{2}}$$

can be written in the form $a + b\sqrt{2}$