



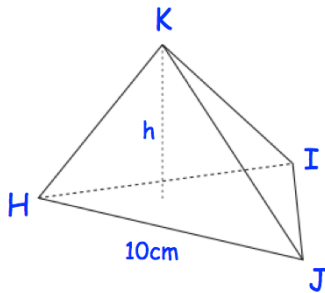
Solve the simultaneous equations

$$9^x \times 27^{2-y} = 3\sqrt{3}$$

$$3x + 2y = 3$$

Expand and simplify

$$(3 + \sqrt{8})(4 + \sqrt{2})$$



HIJK is a triangle based pyramid.

The base HIJ is an equilateral triangle with side 10cm.

The volume of the pyramid is  $300\text{cm}^3$ .

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  $P(C \cap D)$