Name: _____ 5-a-day Higher Plus

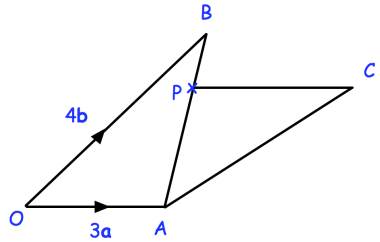
6th April

Corbettmaths

Show that

$(n + 5)^2 - (n - 5)^2$

is positive for all positive values of n.



$\overrightarrow{OA} = 3a$

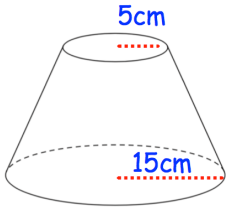
$\overrightarrow{OB} = 4b$

$\overrightarrow{PC} = 1.5\overrightarrow{OA}$

P is a point on $\overrightarrow{AB}$ such that

$AP : PB = 3 : 1$

Find the vector $\overrightarrow{OC}$ in terms of **a** and **b**



A frustum is made is cutting a small cone from the top of a larger cone, that was 21cm tall.

Calculate the surface area of the frustum

A group of students want to estimate how many woodlice live in a greenhouse.
They catch and mark 20 woodlice.
They return the 20 woodlice to the greenhouse.
They then catch 50 woodlice and 11 are marked

Estimate the number of woodlice in the greenhouse.

Name: _____ 5-a-day Higher Plus

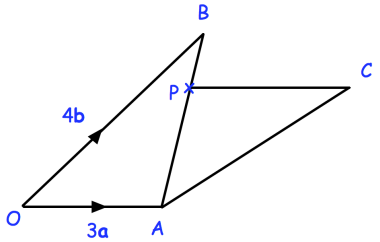
6th April

Corbettmaths

Show that

$(n + 5)^2 - (n - 5)^2$

is positive for all positive values of n.



$\overrightarrow{OA} = 3a$

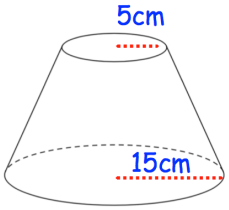
$\overrightarrow{OB} = 4b$

$\overrightarrow{PC} = 1.5\overrightarrow{OA}$

P is a point on $\overrightarrow{AB}$ such that

$AP : PB = 3 : 1$

Find the vector $\overrightarrow{OC}$ in terms of **a** and **b**



A frustum is made is cutting a small cone from the top of a larger cone, that was 21cm tall.

Calculate the surface area of the frustum

A group of students want to estimate how many woodlice live in a greenhouse.
They catch and mark 20 woodlice.
They return the 20 woodlice to the greenhouse.
They then catch 50 woodlice and 11 are marked

Estimate the number of woodlice in the greenhouse.

© Corbettmaths 2017

www.corbettmaths.com