



Solve

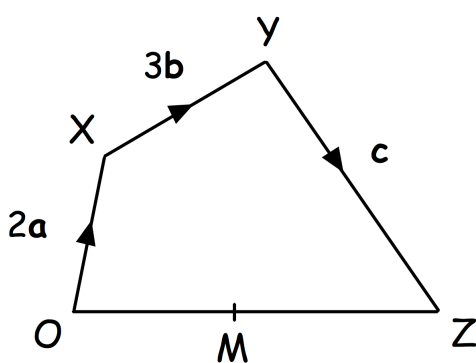
$$x^2 - 4 > 3x$$

A circle has equation  $x^2 + y^2 = 36$

Work out the length of the diameter.

A group of scientists want to estimate the number of eels in a lake. They catch and ring 200 eels. They return the 200 eels to the lake. They then catch 400 eels. Of these, 62 are ringed.

Estimate the number of eels in the lake.



The point M is the midpoint of OZ.

Find the vector

$$\vec{OZ}$$

in terms of **a**, **b** and **c**

Find the vector

$$\vec{MX}$$

in terms of **a**, **b** and **c**