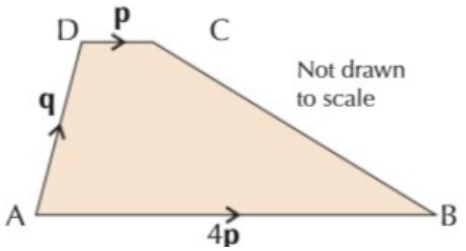
Name - _ _ _ _ _ _ _ _ Start time - _ _ : _ _ End time - _ _ : _ _

Solve the following:

ABCD is a trapezium. $\overrightarrow{AB}$ = 4p, $\overrightarrow{AD}$= q and $\overrightarrow{DC}$ = p. Write down, in terms of p and q:

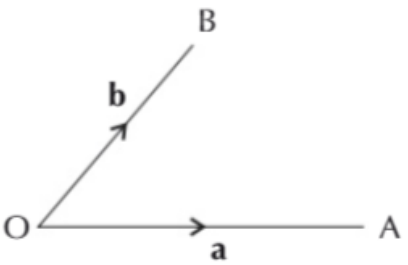


a) $\overrightarrow{CA}$

b) $\overrightarrow{CB}$

c) $\overrightarrow{BD}$

In the diagram on the right, $\overrightarrow{OA}$ = a and OB $\overrightarrow{OB}$ = b. Point C is added such that $\overrightarrow{OC}$ = a + b.



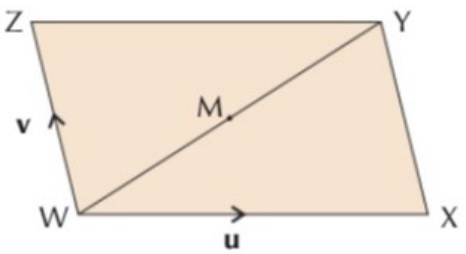
a) What type of shape is OACB?

b) Write down, in terms of a and b:

(i) $\overrightarrow{CO}$

(ii) $\overrightarrow{AB}$

WXYZ is a parallelogram. $\overrightarrow{WX}$ = u and $\overrightarrow{WZ}$ = v.



M is the midpoint of WY.

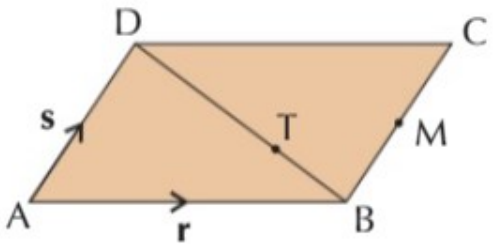
a) Write down, in terms of u and v:

(i) $\overrightarrow{WY}$ (iii) $\overrightarrow{XW}$

(ii) $\overrightarrow{WM}$ (iv) $\overrightarrow{XZ}$

b) Show using vectors that M is the midpoint of XZ.

ABCD is a parallelogram, $\overrightarrow{AB}$ = r and $\overrightarrow{AD}$ = s.



M is the midpoint of BC. Point T lies on BD such that BT: BD = 1:3.

a) Write down $\overrightarrow{AT}$ in terms of vectors r and s.

b) Show that ATM is a straight line.

1 2 3 4 5 6 7 8 9