Al Moattasem International School Jubail <u>Level 9 - Revision Work Sheet 3</u> Chapter 8 <u>Topic – Vector Geometry</u>

1) Triangle PQR is shown below where $\vec{PQ} = \mathbf{b}$ and $\vec{PR} = \mathbf{a}$.



Express the following vectors in terms of **b** and **a**.

a) \vec{PQ} b) \vec{RP} c) \vec{QR} d) \vec{RQ}

2) OABC is a parallelogram where $\vec{OA} = p$ and $\vec{OC} = x$.



Express the following vectors in terms of **p** and **x**.

a) \vec{AB} b) \vec{BC} c) \vec{OB} d) \vec{AC}

3) ABCD is a rectangle where $\overrightarrow{AB} = \mathbf{y}$ and $\overrightarrow{BC} = \mathbf{c}$.



Express the following vectors in terms of \mathbf{y} and \mathbf{c} .

a) \vec{AD} b) \vec{AC} c) \vec{CD} d) \vec{BD}

4) ABCD is a trapezium where $\vec{AB} = \mathbf{c}$, $\vec{BC} = \mathbf{t}$ and $\vec{AD} = 2 \vec{BC}$.



Express the following vectors in terms of **t** and **c**.

a) \vec{AC} b) \vec{DB} c) \vec{CD} d) \vec{DC}

5) ABCDEF is a regular hexagon where $\vec{OA} = p$ and $\vec{OB} = z$.



Express the following vectors in terms of \mathbf{p} and \mathbf{z} .

a) \vec{AB} b) \vec{DB} c) \vec{OC} d) \vec{FD}