

$$\text{Q1. (a) } \vec{PQ} = \underline{b} \quad (\text{b) } \vec{QP} = -\underline{b} \quad (\text{c) } \vec{PR} = -\underline{a}$$

$$(\text{d) } \vec{RQ} = \underline{a} + \underline{b} \quad (\text{e) } \vec{QR} = -\underline{b} - \underline{a}$$

$$\text{Q2. (a) } \vec{CD} = -\underline{v} \quad (\text{b) } \vec{CA} = -\underline{v} - \underline{w}$$

$$(\text{c) } \vec{AB} = 2\underline{v} \quad (\text{d) } \vec{CB} = -\underline{v} - \underline{w} + 2\underline{v}$$

$$(\text{e) } \vec{BD} = -2\underline{v} + \underline{w} \quad = \underline{v} - \underline{w}$$

$$\text{Q3. (a) } \vec{CB} = -\underline{p} + \underline{q} \quad (\text{b) } \vec{BC} = -\underline{q} + \underline{p}$$

$$(\text{c) } \vec{BM} = -\frac{1}{2}\underline{q} + \frac{1}{2}\underline{p} \quad (\text{d) } \vec{AM} = \underline{q} - \frac{1}{2}\underline{q} + \frac{1}{2}\underline{p} = -\frac{1}{2}\underline{q} + \frac{1}{2}\underline{p}$$

$$\text{Q4. (a) } \vec{FG} = \underline{b} \quad (\text{b) } \vec{GH} = \underline{a}$$

$$(\text{c) } \vec{GM} = \frac{1}{2}\underline{a} \quad (\text{d) } \vec{FM} = \underline{b} + \frac{1}{2}\underline{a}$$

$$\text{Q5. (a) } \vec{AQ} = 2\underline{y} \quad (\text{b) } \vec{QB} = -2\underline{y} + \underline{x}$$