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| **Vector Proof – Collinear Points** | |
| **(a)** | **(b)** |
| is a parallelogram. and . is the midpoint of and divides the line in the ratio . Show that the points and are collinear. | is a trapezium. and . and divides the line in the ratio . Show that the points and are collinear. |
| **(c)** | **(d)** |
| In the triangle , and . is the midpoint of OA and the point divides the line in the ratio .  . Show that the points and are collinear. | , and . .  The point divides the line in the ratio . Show that and are collinear. |