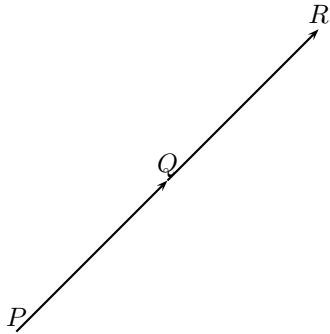
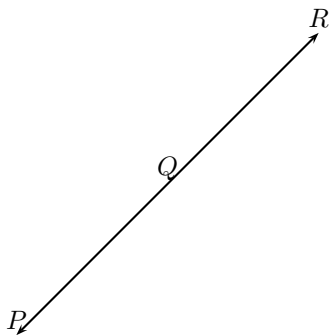


Here is a brief and simple explanation as to why if we have three points P , Q and R such that \overrightarrow{PQ} and \overrightarrow{QR} are parallel then P , Q and R are collinear.

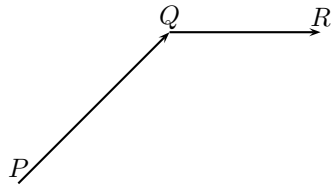
In the diagram below since \overrightarrow{PQ} and \overrightarrow{QR} are parallel we could then extend



the line \overrightarrow{PQ} to \overrightarrow{PR} , as in the following picture:



Now try doing that in this picture:



We would get the following dotted line by extending \overrightarrow{PQ} to \overleftarrow{PQ} in the earlier picture: and, no this isn't vector \overrightarrow{QR} . So I hope that explains this.

