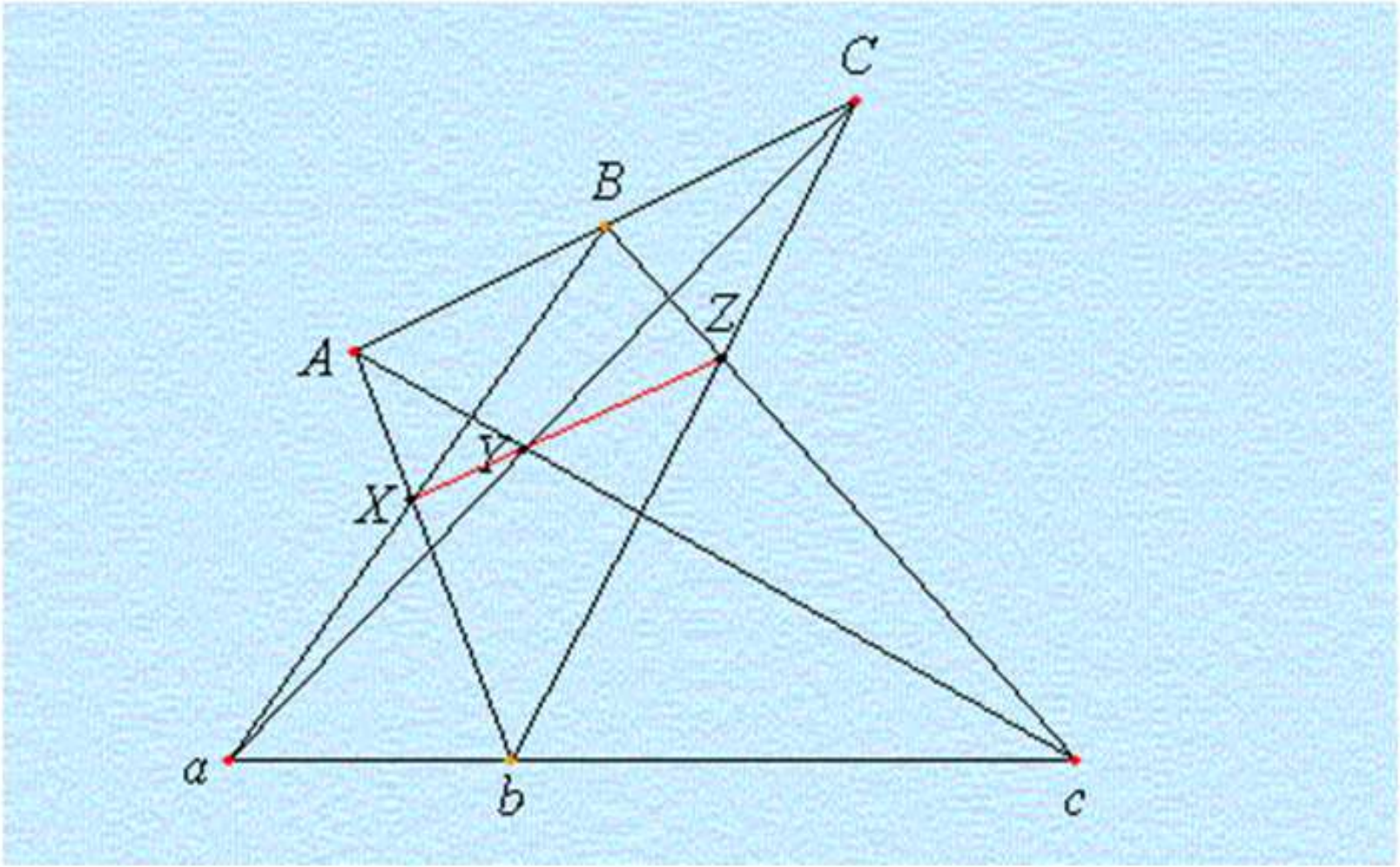
THEOREM OF THE DAY

Pappus' Theorem *Let A, B, C and a, b, c be two sets of collinear points. Let A be joined by a line to b and c; B to a and c; and C to a and b. Then the intersection points of the line pairs Ab with Ba, Ac with Ca and Bc with Cb are again collinear.*



The above picture shows Pappus' Theorem in action. Changing the angle of the lines *AC* or *ac*, or the position of the points *B* or *b* on these lines, will change the length or slope of *XZ* but keep it collinear with *Y*.

Pappus, working in Alexandria about 600 years after Euclid, made valuable compilations of Greek mathematics, as well as contributing some theorems, such as the above, which appear to be original.

Web link: www.mathpages.com/home/kmath542/kmath542.htm

Further reading: *Ancient Mathematics* by Serafina Cuomo, Routledge, 2001.