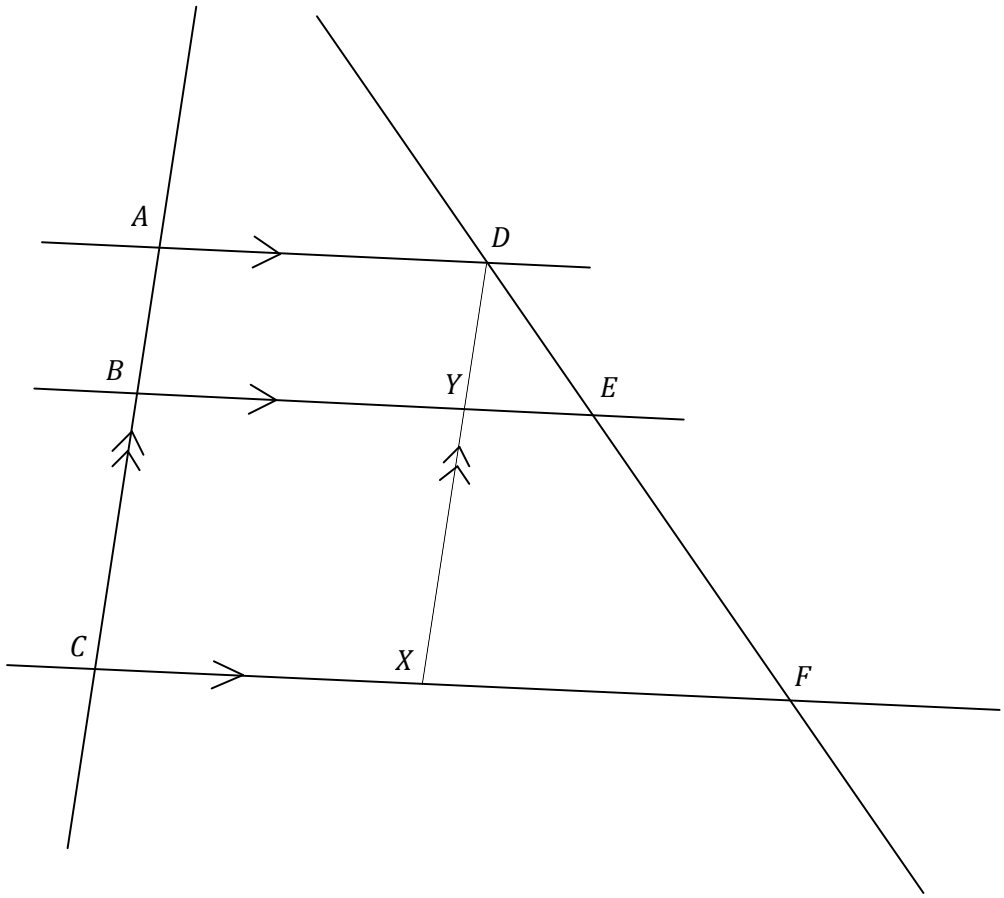
Prove that intercepts made by parallel lines on a set of transversals are in the same ratio.

i.e. Given $AD||BE||CF$, show that $\frac{AB}{BC} = \frac{DE}{EF}$.



Construct interval DX such that $DX||AC$ and DX intersects with BE at point Y.

$\therefore ABYD$ is a parallelogram (both pairs of opposite sides are parallel).

Similarly, $BCXY$ is a parallelogram.

$\frac{DY}{XY} = \frac{DE}{EF}$ (interval parallel to one side of ΔDFX divides other sides in same ratio, $EY||FX$)

But $AB = DY$ (opposite sides of parallelogram $ABYD$ are equal)

Similarly in parallelogram $BCXY$, $BC = XY$.

$\frac{AB}{BC} = \frac{DE}{EF}$ Q.E.D.