Construction 48: Book VI, Proposition 30
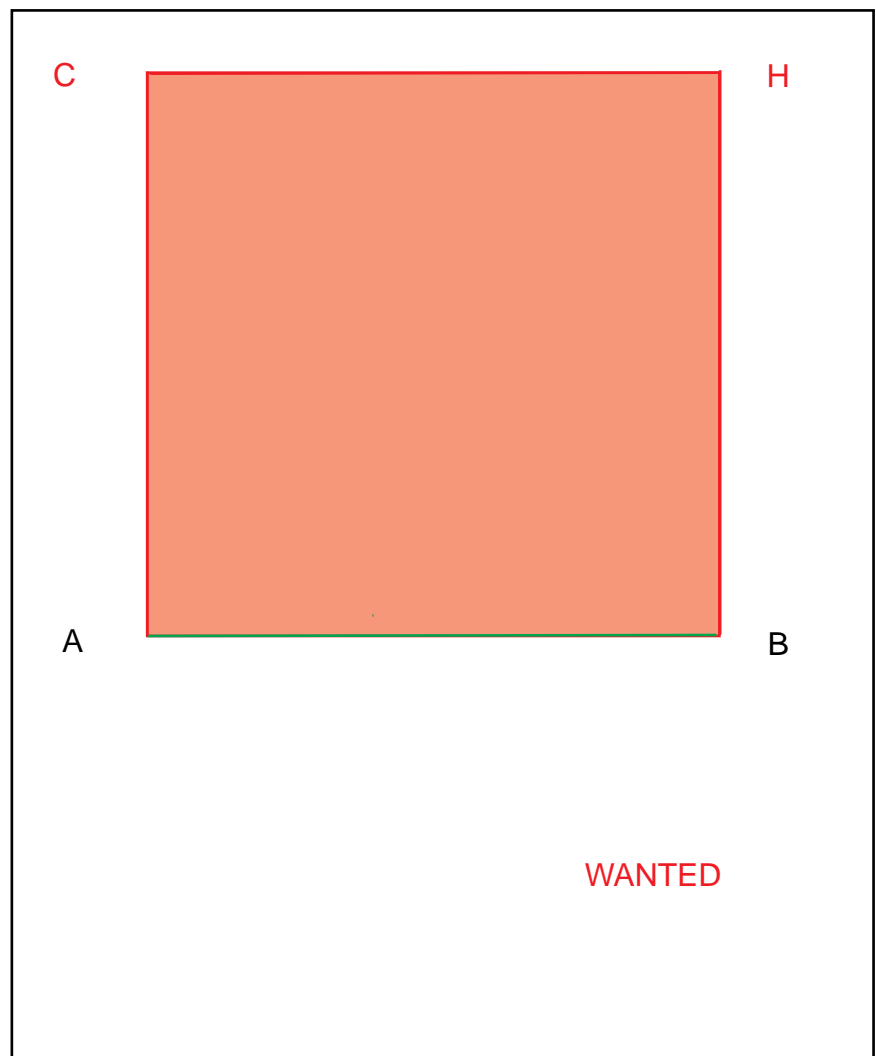
To cut a given finite straight line in extreme and mean ratio.

VI.30:3. Let AB be the given finite straight line;
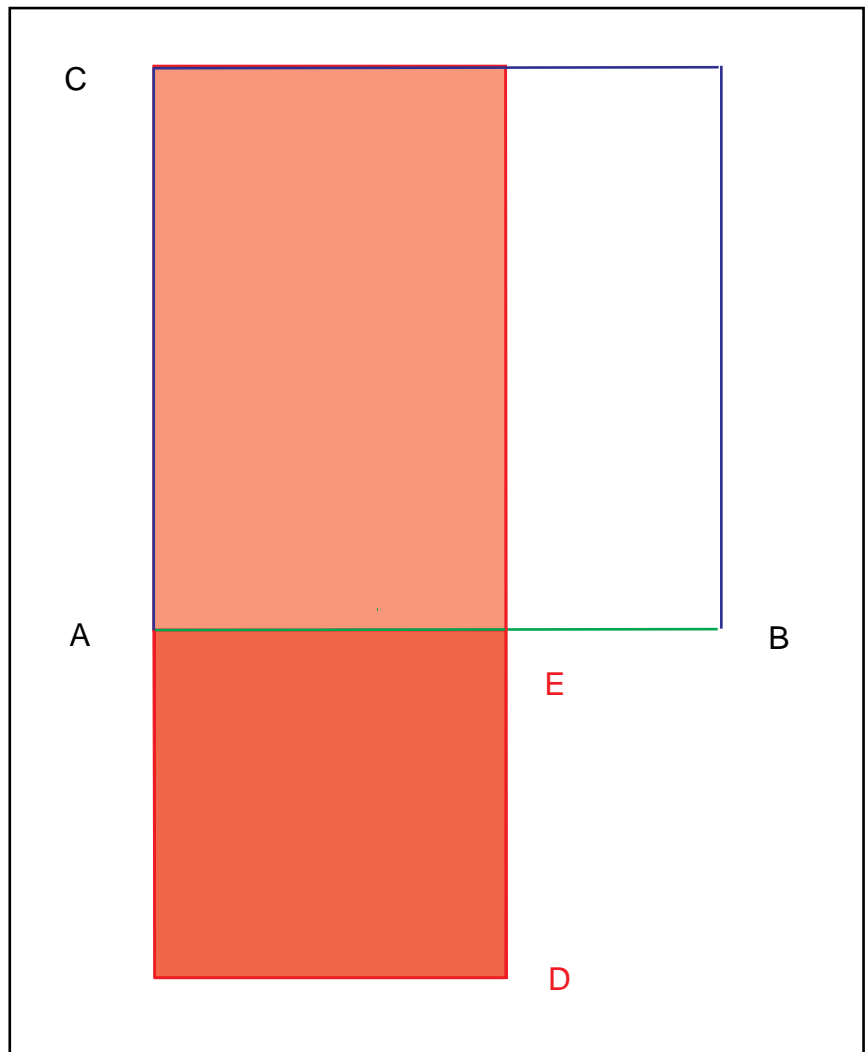
A   B

Stage 1.

VI.30:5. On AB let the square
BC be described; (est. 13 steps)

C   H

A   B

WANTED

Stage 2.

VI.30:6. and let there be applied
to AC the parallelogram CD
equal to BC and exceeding by the
figure AD similar to BC. [VI.29]

Done.

VI.30:23. Therefore the straight
line AB has been cut in extreme
and mean ratio to E, and the
greater segment of it is AC.

return

Q.E.F.

A   E   B