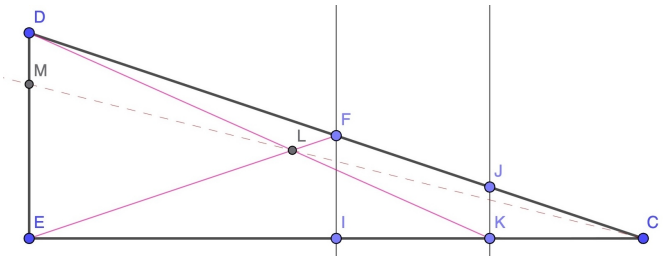
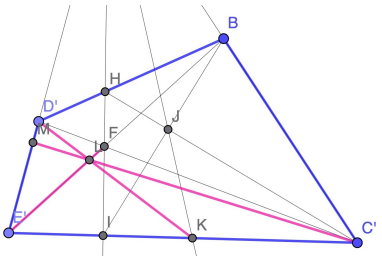
Problem 5 solution:

In the real life rectangle, F is the midpoint, and HI is the vertical midline. This makes J the 3/4 of the way to the right, vertically centered point and JK a piece of the 3/4 way to the right vertical. The real life rectangle $DBCE$ is split into a lower and an upper half by the diagonal DC, and the lines GJK and GFI in the persepctive drawings are images of real life verticals at the 1/2 and 3/4 marks.





The real life triangle $\triangle DCE$ maps to the perspective triangle $D'C'E'$. The three Cevians $D'K, E'F$ and $C'M$ are concurrent (that's how M' was chosen) therefore the corresponding real life Cevians are also concurrent. These are named CM, EF and DK, where my careless use of primes results in the names F and K being used in both worlds. Because the verticals are at the halfway and three-quarters marks, we see that $|EK|/|KC| = 3$ and $|CF|/|FD| = 1$, therefore by Ceva's theorem, $|DM|/|ME| = 1/3$, which is the answer to the question asked.