c) In $\Delta$ ABC we have:

M is midpt of [BC] (proved)

→ then, [AM) is a median relative to [BC].

→ And [AM) is perpendicular to (BC) (given).

So, [AM) is the perp. bisector of [BC]

hence, $\Delta$ ABC is isosceles of vertex A (having a perp. bisector passing through one of its vertices)

* $AM = \frac{BC}{2}$ (proved)

Thus, $\Delta$ ABC is right isosceles at A (property of a median relative to hyp of a right $\Delta$).

5) a). $(\Delta)$ is perp to (AC) (given).

So, $a_{(\Delta)} \times a_{(AC)} = -1$

but $a_{(AC)} = \frac{y_C - y_A}{x_C - x_A}$

$= \frac{1+2}{6-2}$

$a_{(AC)} = \frac{3}{4}$.

hence $a_{(\Delta)} = -\frac{4}{3}$.

but, $(\Delta)$ passes through K.(3,4)

$(\Delta)$: $y - y_K = a_{(\Delta)}(x - x_K)$

$y - 4 = \frac{-4}{3}(x-3)$

$(\Delta)$: $y = -\frac{4}{3}x + 8$.

b). (L) passes through (0,2) (ordinate of origin is 2)
and (3,0) (x-intercept).

(L): $\frac{y-y_1}{x-x_1} = \frac{y_2-y_1}{x_2-x_1}$