b) (D) is parallel to abscissa axis (given)

So, slope of (D) is 0

$(D): y = \frac{-mx}{m-2} + \frac{-m}{m-2} + \frac{4}{m-2}$ $\quad m-2 \neq 0$, $m \neq 2$

means $\frac{-m}{m-2} = 0$

$m = 0$ → accepted $m \neq 2$

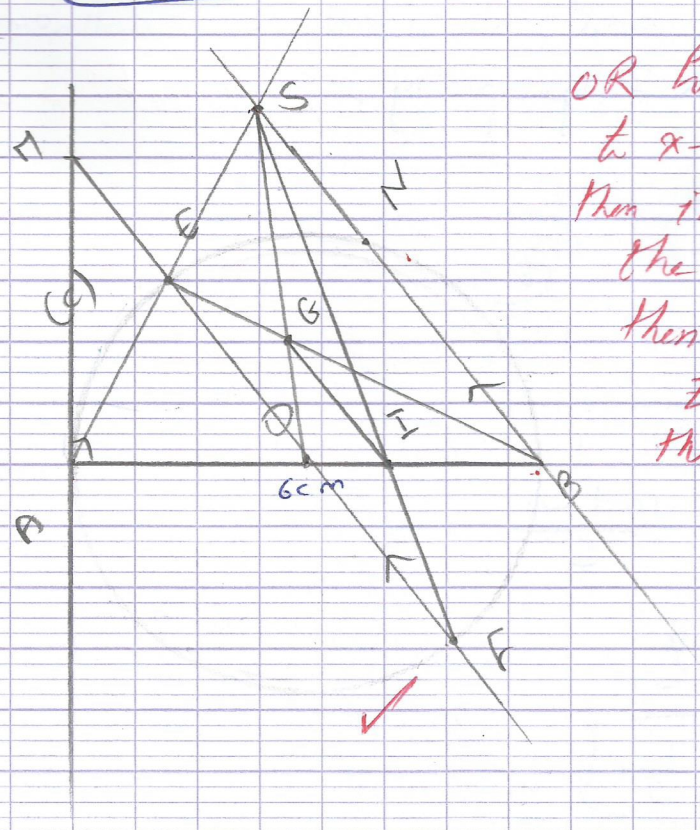
OR for (D) to be parallel to x-axis, then its eqn should be of the form $y = cst$

then coefficient of x is zero

then, $\boxed{m = 0}$

ex 4

1)



2) In △ ABS:

(FM) // (BS) (given) ✓

But E ≠ O belong to [FM] (given) ✓

So, (OE) // (BS) ✓

But O is the center of (C) of diameter [AB] (given) ✓

Then O is the midpt of [AB] ✓

Thus, E is the midpt of [AS] (by converse of midpt theorem in a △) ✓

$2OE = BS$ (by midpt theorem in a △)