3) a) $M(x) = \frac{P(x)}{A(x)}$ is a Fraction expression (likral Fraction)
since it is a polynomial per a polynomial

b) $M(x)$ is not defined, if its denominator is zero
So, $A(x) = 0$
$A(x) = (x-2)(3x-1)$
$0 = (x-2)(3x-1)$
Thus, values of x for which $M(x)$ is not defined are 2 & $\frac{1}{3}$.

Ex-4. P, is a pt on (C') of diameter $[OM]$ (given)
Thus, $O\hat{P}M = 90^\circ$ (inscribed angle facing diameter) ← Rule-a

Now, P is a pt on (C) of center O (given)
So, $[OP]$ is radius of (C).
& $O\hat{P}M = 90^\circ$ (proved)
Thus, (PM) is tangent to (C) at P (Tangent theorem: angle between tangent & radius is right)
Rule-b

2a) In $\triangle OAP$ we have.
$OA = OP$ radii of (C).
Thus, $\triangle OAP$ is isosceles at O (having two equal sides)

b) $P\hat{A}B = \frac{1}{2}$ mes $\overset{\frown}{PB}$ (inscribed angle)
but, OAP is isosceles at P (proved)
So, $P\hat{A}B = A\hat{P}O$ (base angles of an iso.$\triangle$)
but $B\hat{P}M = \frac{1}{2}$ mes $\overset{\frown}{PB}$ (angle formed between tangent & chord)
Thus, $A\hat{P}O = B\hat{P}M$ (by comparison

3a) Q is a pt on (C') of diameter $[OM]$ (given)
So, $O\hat{Q}M = 90^\circ$ (by - a)
Q is a pt on (C) of center O (given)
hence, $[MQ)$ is a tangent to (C) at Q (Tangent theorem by - b)