hence, [OP) is the third height relative to [SQ]
Thus, (OQ) is perpendicular to (QS).

b). In Δ AQS we have
(OP) is perp. bisector of [MB] (proved)
(OP) $\perp$ (QS) (proved) } (AM) $\perp$ (SQ)
but (OP) // (AM) (proved)
(If 2 straight-lines are parallel then every perpendicular to the 1st is also perpendicular to the other)

So (AM) is the height relative to [SQ]
& (SB) $\perp$ (AQ) (proved)
but (SB) and (AM) intersect at R.
So R is orthocenter of AQS
Thus, (QR) is perp. (AS).
because (QR) passes through the vertex Q and the orthocenter R

5) a) In Δ ABJ we have:
$\widehat{AMB} = 90°$ (proved)
So, [AM) is the height relative to [BJ]
J is the symmetric of B w.r.t M (given)
So, M is midpt of [JB].
So, [AM) is the median relative to [BJ]
Thus, Δ ABJ is isosceles at A (having a height as a median issued from same vertex)

b) AJ = AB (sides adjacent to main vertex of an isosceles Δ)
but AB = 6cm (cst).
So, AJ = 6cm
Which means distance between a fixed pt A & a variable pt J is cst.
Thus, as M moves on (C) J describes the circle of fixed center A & radius AB = 6cm.