Exercise 3.2: (i) and (ii) follow from (M1-M3). Let $r = p$. From (ii) we have $d(p, p) \leq d(q, p) + d(q, p)$. Together with (i) we have $0 \leq 2 \cdot d(q, p)$, which shows that $d(q, p) \geq 0$. Furthermore, let $r = q$. From (ii) we have $d(p, q) \leq d(q, p) + d(q, q)$. Together with (i) we have $d(p, q) \leq d(q, p)$. By swapping $p, q$ we also obtain $d(q, p) \leq d(p, q)$, and thus we have $M2$.

(See page 12 in the book for a weaker statement than in Exercise 3.2 and its proof.)