

$$y = ax + b$$

$$z = a + bs$$

Q. Find ~~the~~ ~~value~~ ~~of~~ ~~P~~ ~~if~~ ~~$A = QR$~~ ~~and~~ ~~$P = Q Q^T$~~

~~Ans~~ ~~Ans~~ ~~Ans~~ ~~Ans~~

$$P = Q Q^T$$

a) $P = A A^T = ; A = QR ; A^T = R^T Q^T = (A^T A)^T A^T$
 $= Q R (A^T A)^T A^T = Q R (R^T Q^T R)^T R^T = Q R (R R^T) R^T$
 $= Q R R^T = Q Q^T$

b)