$x_P = x_Q = -2$. then (PQ) $\parallel$ y-axis so $a_{(PQ)}$ doesn't exist.

b) $\frac{1}{4}$ $a_{(PQ)} = \frac{y_Q - y_P}{x_Q - x_P} = \frac{6-(-6)}{-2-(-2)} = \frac{12}{0}$ not defined $\frac{1}{4}$

so the straight line (PQ) has no slope thus its equation is of the form $x = \text{constant} = x_Q = x_P$ (Since P & Q belongs to (PQ)

$\boxed{(PQ): x = -2}$ $\frac{1}{2}$

3) a) (Δ): $y = x + 3$

B & A belong to (Δ) so the coordinates of A & B verify the eq. of (Δ)

stat $\frac{1}{4}$

$y_A = x_A + 3$

$n = \frac{m}{2} + 3$

$2n = m + 6$

$\boxed{2n - m = 6 \quad eq.1}$ $\frac{1}{4}$

$y_B = x_B + 3$

$4 - n = -1 - m + 3$

$4 - n = -m + 2$

$4 - 2 = n - m$

$\boxed{n - m = 2 \quad eq.2}$ $\frac{1}{4}$

So m and n verify the system $\begin{cases} 2n - m = 6 \\ n - m = 2 \end{cases}$

b) A and B belong to (Δ) so m and n verify the above system: $\begin{cases} 2n - m = 6 \\ n - m = 2 \end{cases}$

by substracting the 2 equation (elimination method)

system: $\frac{3}{4}$

$2n - n = 6 - 2$

$\boxed{n = 4}$

Substitute n by its value in equation 2:

$4 - m = 2$ so $m = 4 - 2 = 2$

$\boxed{m = 2}$

$A\left(\frac{2}{2}; 4\right)$ $B(-1-2; 4-4)$

$\boxed{A(1;4)}$ $\frac{1}{4}$ $\boxed{B(-3;0)}$ $\frac{1}{4}$