Solución

a) $A + B^t = \begin{pmatrix} 6 & -3 \\ -2 & \frac{-27}{5} \\ 4 & 1 \end{pmatrix}$

b) $AB = \begin{pmatrix} 5 & \frac{-44}{5} & -5 \\ 25 & \frac{-193}{5} & 2 \\ 0 & \frac{-6}{5} & -6 \end{pmatrix}$ $\quad BA = \begin{pmatrix} -30 & 19 \\ 3 & \frac{-48}{5} \end{pmatrix}$

c) $(5B+A^t)^t = \begin{pmatrix} 26 & -3 \\ -30 & -3 \\ 20 & 13 \end{pmatrix}$

d) $(AB)^2 = \begin{pmatrix} -195 & \frac{7542}{25} & \frac{-63}{5} \\ -840 & \frac{31689}{25} & \frac{-1071}{5} \\ -30 & \frac{1338}{25} & \frac{168}{5} \end{pmatrix}$