

# Bài tập Computational Graph

## Nhóm 15

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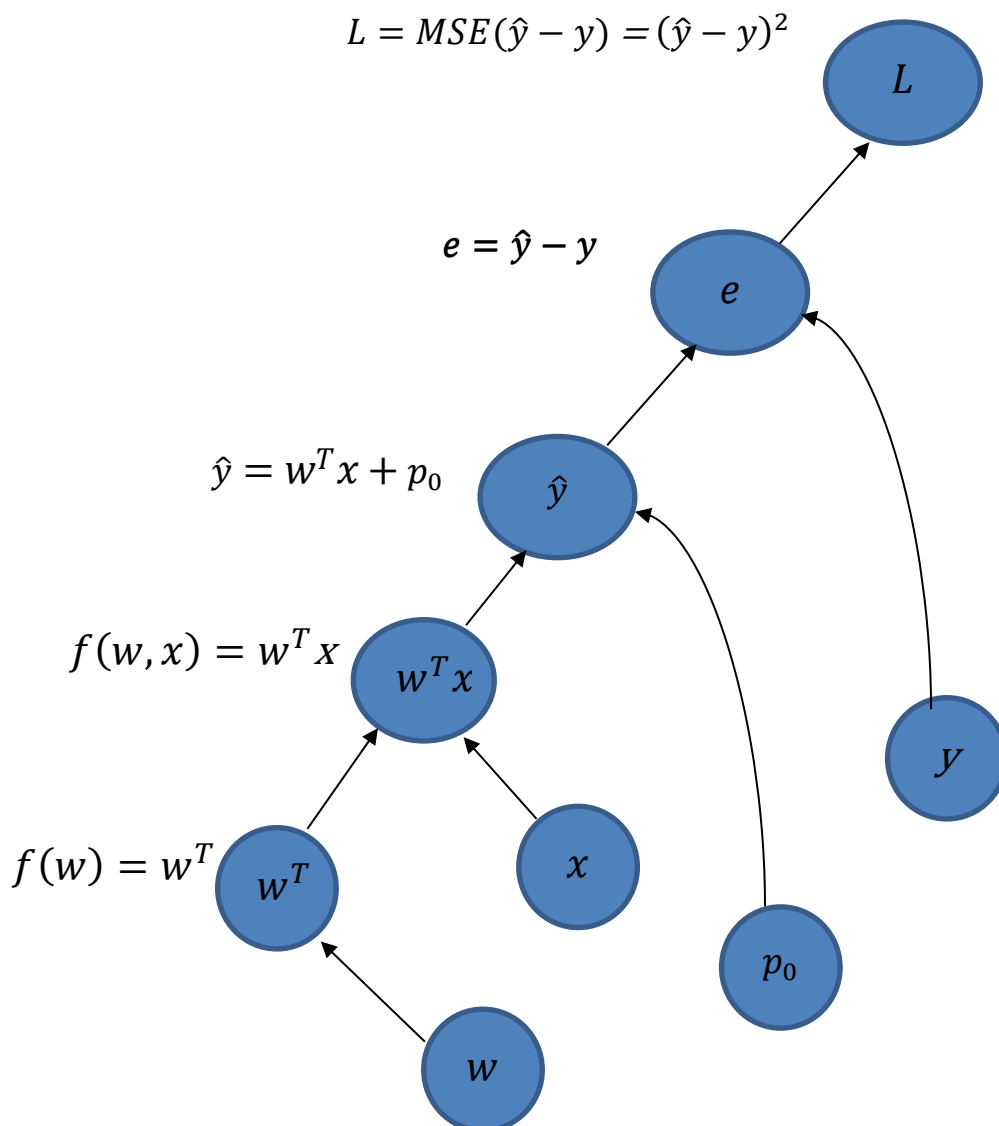
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**Câu 1:** Draw CG for  $L = \text{MSE}(\hat{y}, y)$  of a prediction  $\hat{y} = (w^T x + p_0)$  with respect to the true value  $y$ .



Câu 2:

$$- \mathbf{w} = \begin{pmatrix} \frac{4}{5} \\ -\frac{7}{5} \end{pmatrix} \Rightarrow \mathbf{w}^T = \left( \frac{4}{5} \quad \frac{-7}{5} \right)$$

$$- \mathbf{x} = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$- \mathbf{w}^T \mathbf{x} = \left( \frac{4}{5} \quad \frac{-7}{5} \right) * \begin{pmatrix} 1 \\ 1 \end{pmatrix} = \left( \frac{-3}{5} \right)$$

$$- \hat{y} = \mathbf{w}^T \mathbf{x} + p_0 = \left( \frac{-3}{5} \right) + \frac{3}{5} = 0$$

$$- L = (\hat{y} - y)^2 = (0 - 1)^2 = 1$$