1.

1/1 point

Gradient descent for logistic regression

repeat {

$$w_{j} = w_{j} - \alpha \left[\frac{1}{m} \sum_{i=1}^{m} (f_{\overrightarrow{\mathbf{w}},b} (\overrightarrow{\mathbf{x}}^{(i)}) - \mathbf{y}^{(i)}) \mathbf{x}_{j}^{(i)} \right]$$
$$b = b - \alpha \left[\frac{1}{m} \sum_{i=1}^{m} (f_{\overrightarrow{\mathbf{w}},b} (\overrightarrow{\mathbf{x}}^{(i)}) - \mathbf{y}^{(i)}) \right]$$

} simultaneous updates

$$f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}) = \frac{1}{1 + e^{-(\overrightarrow{\mathbf{w}} \cdot \overrightarrow{\mathbf{x}} + b)}}$$

Which of the following two statements is a more accurate statement about gradient descent for logistic regression?

- The update steps look like the update steps for linear regression, but the definition of $f_{\vec{w},b}(\mathbf{x}^{(i)})$ is different.
- The update steps are identical to the update steps for linear regression.

○ Correct