✓ **Selamat! Anda lulus!**

Nilai diterima 100%	Nilai Pengiriman Terbaru 100%	UNTUK LULUS 80% atau lebih tinggi

Pergi ke item berikutnya

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1. Which of the following can address overfitting?   **1 / 1 poin**

   ☐ Remove a random set of training examples

   ☑ Select a subset of the more relevant features.

   > ✓ **Benar**
   > If the model trains on the more relevant features, and not on the less useful features, it may generalize better to new examples.
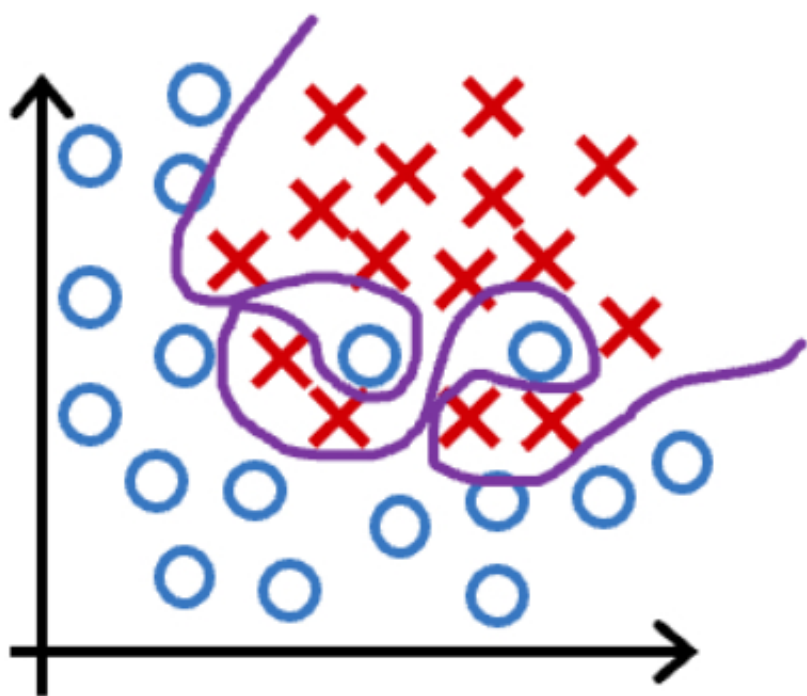
   ☑ Apply regularization

   > ✓ **Benar**
   > Regularization is used to reduce overfitting.

   ☑ Collect more training data

   > ✓ **Benar**
   > If the model trains on more data, it may generalize better to new examples.

2. You fit logistic regression with polynomial features to a dataset, and your model looks like this.   **1 / 1 poin**

   What would you conclude? (Pick one)

   ○ The model has high bias (underfit). Thus, adding data is, by itself, unlikely to help much.

   ● The model has high variance (overfit). Thus, adding data is likely to help

   ○ The model has high bias (underfit). Thus, adding data is likely to help

   ○ The model has high variance (overfit). Thus, adding data is, by itself, unlikely to help much.

   > ✓ **Benar**
   > The model has high variance (it overfits the training data). Adding data (more training examples) can help.

3. **1 / 1 poin**

   # Regularization

   $$\min_{\vec{w},b} J(\vec{w}, b) = \min_{\vec{w},b} \left[\underbrace{\frac{1}{2m} \sum_{i=1}^{m} \left(f_{\vec{w},b}(\vec{x}^{(i)}) - y^{(i)} \right)^2}_{\text{mean squared error}} + \underbrace{\frac{\lambda}{2m} \sum_{j=1}^{n} w_j^2}_{\text{regularization term}} \right]$$

   Suppose you have a regularized linear regression model. If you increase the regularization parameter λ, what do you expect to happen to the parameters $w_1, w_2, ..., w_n$?

   ● This will reduce the size of the parameters $w_1, w_2, ..., w_n$

   ○ This will increase the size of the parameters $w_1, w_2, ..., w_n$

   > ✓ **Benar**
   > Regularization reduces overfitting by reducing the size of the parameters $w_1, w_2, ...w_n$.