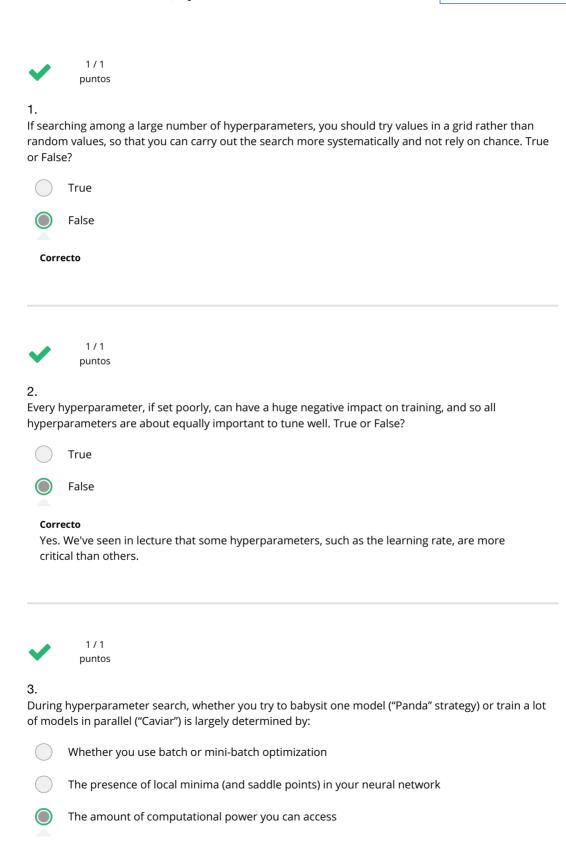
## **✓** ¡Felicitaciones! ¡Aprobaste!

Correcto



network, what are you normalizing?

 $b^{[l]}$ 

 $a^{[l]}$ 

	$W^{[I]}$	
	$z^{[l]}$	
Correcto		
<b>~</b>	1/1 puntos	
7. In the normalization formula $z_{norm}^{(i)}=\frac{z^{(i)}-\mu}{\sqrt{\sigma^2+\varepsilon}}$ , why do we use epsilon?		
	To speed up convergence	
	In case $\mu$ is too small	
	To avoid division by zero	
Correcto		
	To have a more accurate normalization	
<b>~</b>	1/1 puntos	
8.		
WITICIT	of the following statements about $\gamma$ and $\beta$ in Batch Norm are true? The optimal values are $\gamma=\sqrt{\sigma^2+\varepsilon}$ , and $\beta=\mu$ .	
Dese	eleccionado es lo correcto	
2 - SCIESTING CONTROLO		
	They can be learned using Adam, Gradient descent with momentum, or RMSprop, not just with gradient descent.	
Correcto		
	There is one global value of $\gamma\in\Re$ and one global value of $\beta\in\Re$ for each layer, and applies to all the hidden units in that layer.	
Deseleccionado es lo correcto		
	They set the mean and variance of the linear variable $z^{\rm I}I$ of a given layer.	
Correcto		
	$eta$ and $\gamma$ are hyperparameters of the algorithm, which we tune via random sampling.	

Correcto

<b>~</b>	1/1 puntos
	raining a neural network with Batch Norm, at test time, to evaluate the neural network on a new le you should:
	Perform the needed normalizations, use $\mu$ and $\sigma^2$ estimated using an exponentially weighted average across mini-batches seen during training.
Corr	ecto
	If you implemented Batch Norm on mini-batches of (say) 256 examples, then to evaluate on one test example, duplicate that example 256 times so that you're working with a mini-batch the same size as during training.
	Skip the step where you normalize using $\mu$ and $\sigma^2$ since a single test example cannot be normalized.
	Use the most recent mini-batch's value of $\mu$ and $\sigma^2$ to perform the needed normalizations.
<b>~</b>	1/1 puntos
10. Which apply)	of these statements about deep learning programming frameworks are true? (Check all that
	A programming framework allows you to code up deep learning algorithms with typically fewer lines of code than a lower-level language such as Python.
Corr	ecto
	Deep learning programming frameworks require cloud-based machines to run.
Dese	eleccionado es lo correcto
	Even if a project is currently open source, good governance of the project helps ensure that the it remains open even in the long term, rather than become closed or modified to benefit only one company.

