**Week 1 Quiz**

1. hat does flow\_from\_directory give you on the ImageGenerator?

The ability to easily load images for training

The ability to pick the size of training images

The ability to automatically label images based on their directory name

All of the above

2. If my Image is sized 150x150, and I pass a 3x3 Convolution over it, what size is the resulting image?

153x153

150x150

450x450

148x148

3. If my data is sized 150x150, and I use Pooling of size 2x2, what size will the resulting image be?

148x148

300x300

75x75

149x149

4. If I want to view the history of my training, how can I access it?

Pass the parameter ‘history=true’ to the model.fit

Download the model and inspect it

Use a model.fit\_generator

Create a variable ‘history’ and assign it to the return of model.fit or model.fit\_generator

5. What’s the name of the API that allows you to inspect the impact of convolutions on the images?

The model.convolutions API

The model.layers API

The model.images API

The model.pools API

6. When exploring the graphs, the loss levelled out at about .75 after 2 epochs, but the accuracy climbed close to 1.0 after 15 epochs. What's the significance of this?

There was no point training after 2 epochs, as we overfit to the validation data

There was no point training after 2 epochs, as we overfit to the training data

A bigger training set would give us better validation accuracy

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7. Why is the validation accuracy a better indicator of model performance than training accuracy?

It isn't, they're equally valuable

There's no relationship between them

The validation accuracy is based on images that the model hasn't been trained with, and thus a better indicator of how the model will perform with new images.

The validation dataset is smaller, and thus less accurate at measuring accuracy, so its performance isn't as important

8. Why is overfitting more likely to occur on smaller datasets?

Because in a smaller dataset, your validation data is more likely to look like your training data

Because there isn't enough data to activate all the convolutions or neurons

Because with less data, the training will take place more quickly, and some features may be missed

Because there's less likelihood of all possible features being encountered in the training process.