In class assignment

All answers should be given as complete sentences. Someone reading your answers should be able to understand them as statements, even if they have never seen the questions.
Make a word document for your answers and insert the corresponding images.
IGB images should exported from IGB. Do not use screen capture, the resolution is too low.
Make sure any text in the image is clearly legible.
You will need to refer to this paper, it should be easy to find the pdf:
"RNA-seq of Arabidopsis pollen uncovers novel transcription and alternative splicing." Plant Physiol. 2013 Jun;162(2):1092-109. doi: 10.1104/pp.112.211441. Epub 2013 Apr 16.

Remember that this is not a quiz. The point is to ask questions and then know how to do things, so don't be shy about admitting what you don't know.

Task 1:
a) Export an image from IGB showing the primers you would use if you wanted to genotype a plant from the SALK_042598 line.
   Get the primer sequences using this web page:
   http://signal.salk.edu/tdnaprimers.2.html
   Make sure your sequences are part of your image.
b) Which gene would you most likely be trying to study if you were using this line?
c) You mistakenly use the primers from part (a) to test for exon skipping in an RNA sample. Explain why there were no PCR products.

Task 2:
Duplicate figures from Loraine 2013 Pollen paper:
a) Fig. 5
b) Fig. 6D
   red box is acceptable
c) Fig. 8B
   Your gene models will include 4 models, not the 3 shown here.

Task 3:
a) What is the pattern in splicing preference shown in figure 8B?
b) Add junctions from cold stress RNA seq data and export an image that matches the exact duplicate of 8B, but with the added tracks.
c) Does the additional information follow the same pattern?

Task 4:
For the junction with a score of 1, how might we find out if that is a real junction or an alignment artifact?