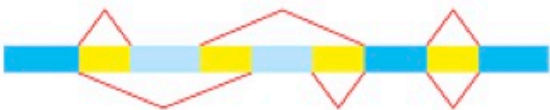
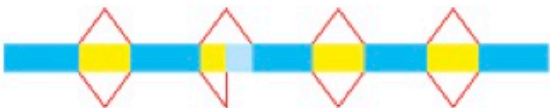
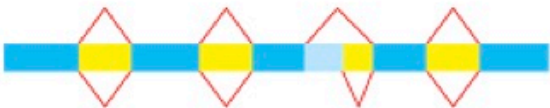
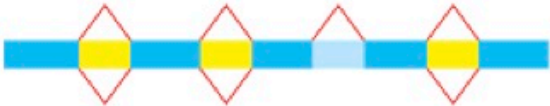


What types of splicing do these represent?



Paper PCR:

You have the following sequence you'd like to amplify (make more of). Though it is shown on it's own here, it's actually embedded in a longer genomic sequence.

```
5' ATGCGGTCAGTATGGGCTCAGTCGTTTACGGGACATTGACAGTCAGCTTCAAACGATCGC 3'
3' TACGCCAGTCATACCCGTGTCAGCAAATGCCCTGTAACTGTCAGTCGAAGTTTGCTAGCG 5'
```

What are the sequences of the two primers you need to make? Make your primers 10 nucleotides long. Be sure to write them in the traditional 5' → 3' direction.

In the first round of PCR, what are the results you get?

The second round?

How many pieces of DNA will you have after the 10<sup>th</sup> round, if you started with a single piece of DNA?

### Paper Sequencing:

If I have the sequences below, what are the potential DNA sequences to come out of each dideoxyNTP pot?

5' GACTCGGGTATGACTGGCGTA 3'

sequencing primer:

5' \*TAC 3'

ddATP

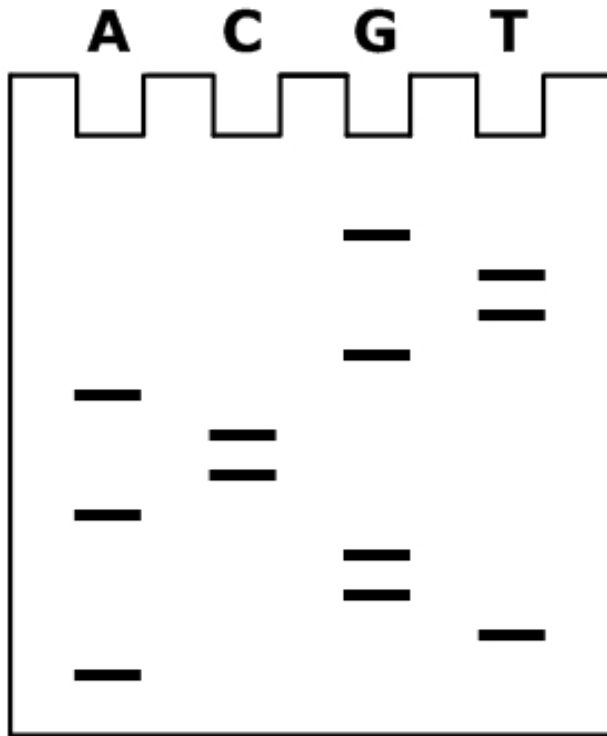
ddGTP

ddTTP

ddCTP

Paper Electrophoresis:

If we get the following gel after our gel electrophoresis, what does that mean the sequence of the growing strand is?



What is the sequence this chromatograph represents?  
Green=A, Black=G, Read=T, Blue=C

