**Recombinant DNA Steps**

1. A segment of DNA is isolated and is cut by a restriction enzyme
2. The restriction enzyme cuts the DNA at the recognition sites on either side of the gene which creates a staggered cut
3. Unpaired nucleotides overhang at the break which produces sticky ends
4. A plasmid is removed from a bacterium
5. The plasmid is cut with the same restriction enzyme which creates sticky ends
6. The sticky ends of the isolated gene and the plasmid are joined together by DNA ligase
7. The combined gene and plasmid are inserted into a bacterial cell where it undergoes mitosis
8. Large amounts of the gene is produced
9. The product is then cultured/matures until it is ready
10. The product is packaged