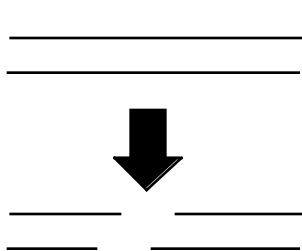


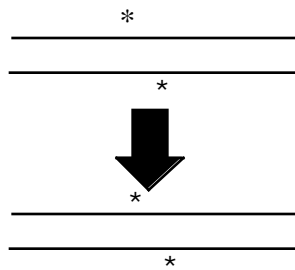
One-minute write 4/11/00

How do cells survive restriction after DNA replication?

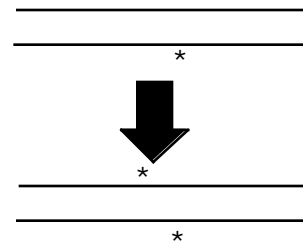
ANSWER: Immediately after DNA replication the restriction site will only be methylated on one strand ("hemimethylated"). The hemimethylated DNA is rapidly modified by the methylase, so it is not cut by the restriction enzyme



Unmodified DNA
rapidly restricted



Modified DNA
not restricted



Hemimethylated DNA
rapidly modified