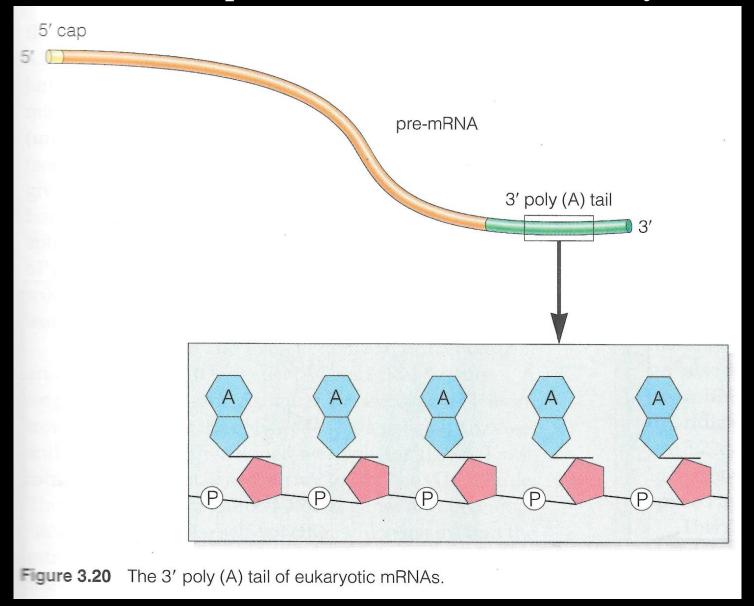


**Figure 3.19** The 5' cap of eukaryotic mRNAs. The 5' cap consists of a guanine nucleotide attached by a 5'-5' triphosphate linkage to the 5' end of the mRNA. The guanine base is methylated on nitrogen number 7. The 2' hydroxyl group of the nucleotide bound to the cap is also methylated.



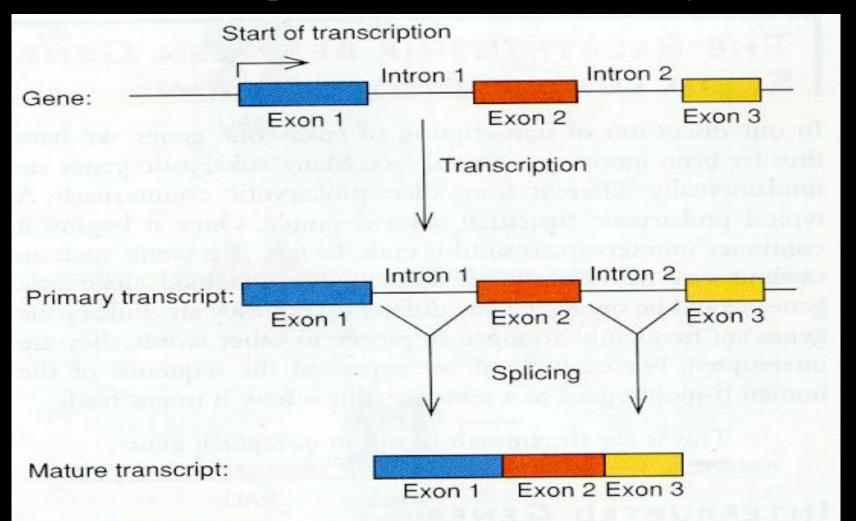


FIGURE 9.33 Outline of splicing. The introns in a gene are transcribed along with the exons (colored boxes) in the primary transcript. Then they are removed as the exons are spliced together.