Unit 7 Test Review

1. What are the three different types of RNA?
2. What are the roles of each of these three types of RNA?
3. What is a mutation? What are at least three different causes of mutations?
4. For a mutation to affect future offspring, which cells must the mutation occur in? If there is a mutation in somatic cells, will future offspring be affected?
5. What are somatic cells? What are gametes?
6. What is a master control gene?
7. What is gene expression? Please give an example.
8. What is pigment? What does pigment do in hair and skin?
9. Can the environment affect gene expression?
10. What is a frameshift mutation, and how will the subsequent protein be affected?
11. What is a deletion mutation, and how will the subsequent protein be affected?
12. What is a substitution mutation, and how will the subsequent protein be affected?
13. What is an organism’s genotype? What is an organism’s phenotype?
14. What is a chromosomal alteration?
15. What is an inherited mutation? What is an acquired mutation? Give an example of each.
16. Draw an mRNA, tRNA, and a ribosome. Draw small.
17. What are proteins made out of? They are chains of what? Sometimes they are called

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1. Where does transcription take place? Translation? What specific organelle for each?
2. What does transcription produce? Translation?
3. If all cells have the same DNA, how are they able to function so differently using this protein synthesis process?