Amoeba Sisters Video Recap: DNA vs. RNA & Protein Synthesis UPDATED

Whose Show Is This?
DNA shouldn’t get all the credit! For this portion, check out the Amoeba Sisters DNA vs. RNA video.
Then, write “D” if for DNA, “R” if for RNA, or “BOTH” if it pertains to both DNA and RNA.

1._________ I am a nucleic acid.
2._________ I am usually single-stranded.
3._________ I am generally found both inside and outside of the nucleus [in eukaryotic cells].
4._________ I am arranged as a double helix, and my shape is often described as a “twisted ladder.”
5._________ I include bases guanine, cytosine, and adenine.
6._________ Each of my nucleotides includes a phosphate, sugar, and base.
7._________ I include the base uracil.
8._________ I include the base thymine.
9._________ I generally remain in the nucleus [in eukaryotic cells].
10._______ I have the sugar deoxyribose.
11._______ I am made up of nucleotides.
12._______ I have the sugar ribose.

For the following discussed RNA types, complete the missing information in the boxes below.
Some boxes have been filled in for you.

<table>
<thead>
<tr>
<th>Type: mRNA</th>
<th>13. Type: ______________________</th>
<th>14. Type: ______________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stands for:</td>
<td>15. __________________________</td>
<td>16. __________________________</td>
</tr>
<tr>
<td>Stand to Help You Remember:</td>
<td>17.</td>
<td>18.</td>
</tr>
<tr>
<td>General Function:</td>
<td>19. __________________________</td>
<td>20. __________________________</td>
</tr>
</tbody>
</table>

General Function:
Transfers amino acids [to area of protein synthesis].
## Protein Synthesis Summary

Complete the missing information in the summary chart after watching the Amoeba Sisters Protein Synthesis video.

<table>
<thead>
<tr>
<th>Process Name</th>
<th>Location (in eukaryotic cell)</th>
<th>Brief and General Description</th>
<th>End Result</th>
<th>DNA directly involved? (yes or no?)</th>
<th>List RNA type(s) involved (mRNA, rRNA, and/or tRNA?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcription</td>
<td>21.</td>
<td>22.</td>
<td>23.</td>
<td>24.</td>
<td>mRNA only</td>
</tr>
</tbody>
</table>

29. Consider the illustration placed in the transcription box above. Identify and label on the illustration if any of the following are present: **DNA, mRNA, rRNA, tRNA, and/or amino acid**.

30. Consider the illustration placed in the translation box above. Identify and label on the illustration if any of the following are present: **DNA, mRNA, rRNA, tRNA, and/or amino acid**.