**Context bank key for Tree Diagrams App:**

The context bank is split into three files: Context\_Bank\_L1, Context\_Bank\_L2, and Context\_Bank\_L3, which are for levels 1, 2, and 3 of the game respectively. Below you will find descriptions of each column in the banks. Note that banks 2 and 3 have several columns unique to that level which are included separately below.

**Columns that are consistent to all 3 banks:**

Context : Gives the context of the problem (including question number)

L1-L12 : Labels that go on the correct tree. The numbers refer to a full tree where all nodes have 3 children (L1 is edge AB, L2 is edge AC, …, and L12 is edge DM). Use a dash (-) if the edge is irrelevant to the context

W1-W12 : Weights of all edges for the correct tree, denoted the same way as L1-L12. For edges that are not used, input 0.

nCA: Number of children of node A in the correct tree (will be either 2 or 3)

nCB: Number of children of node B in the correct tree (will be either 0, 2, or 3)

nCC : Number of children of node C in the correct tree (will be either 0, 2, or 3)

nCD: Number of children of node D in the correct tree (will be either 0, 2, or 3); is 0 if node A has only 2 children

nQs: Number of questions implemented for the context

Q1-Q5: Questions for the context (labeled by letter: a, b, …)

A1-A5: Answers to corresponding question (A1 answers Q1, A2 answers Q2, etc.) Note that in the app, answers will be rounded to 2 places for checking purposes, so ensure that the value displayed as the answer will properly round to 2 decimal places. When displayed, the answer will show with the same number of decimal places as in the context bank. For consistency, this is generally left at 4 decimal places.

**Columns unique to level 2:**

label1-label4: Answer choices for potential edge labels in the first part of level 2; will include 2 correct answers and 2 incorrect answers in the order that they will appear in the select input

correctLabel1: Which label number provides the correct labels for the edges coming from the root node

correctLabel2: Which label number provides the correct labels for edges going to root nodes; level 2 assumes that these will all be the same

**Columns unique to level 3:**

Recursive: Takes a value of 0 or 1 to indicate whether the scenario involves recursive nodes; 1 if recursive 0 if not

E-M: Indicates the node (if any) that the node is recursive to; if the node is not recursive or not a leaf in the tree, then input n

labelDefs: Text to be used as a label for sample answers; intended to be used to clarify recursive color coding (currently not used but could be re-implemented)