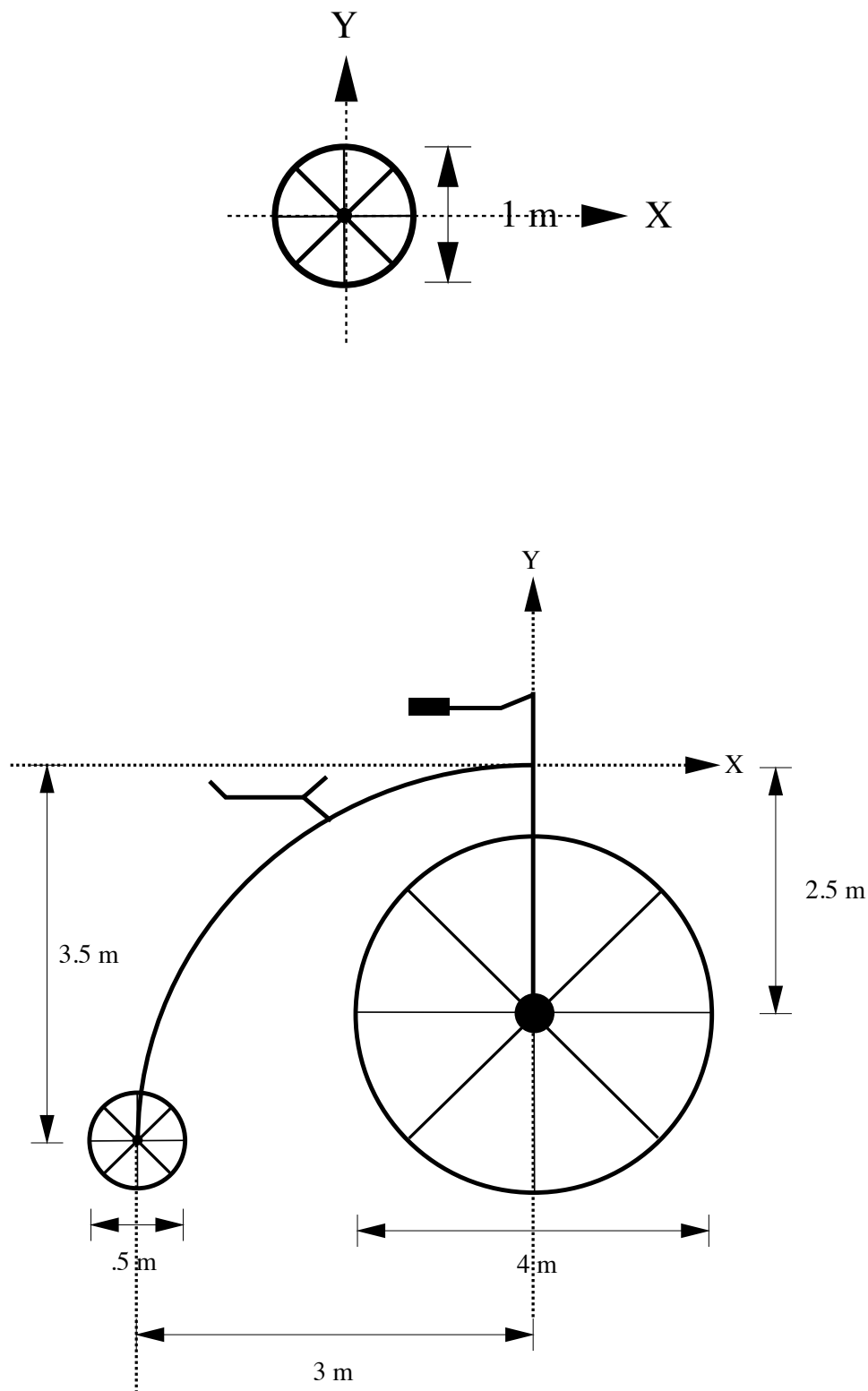


You're on a development team making a bicycle racing game. You've been asked to assemble and animate a model of a Penny Farthing from the parts designed by the modeling department:



You've authored two routines, `drawWheel()`, and `drawBikeFrame()`, that will render each model according to its original dimensions, and manage updating your shader uniforms (i.e., you don't need to explicitly call `current()` to get the current model-view matrix). Assume your game framework provides the Penny Farthing's position as the `vec3`-typed variable `pos(t)`, which you should use to position the bike at the start of the frame.

Diagram the sequence of modeling and viewing transformations you would need to animate the moving model, including when you would need to render each part by calling your draw routines. Also include the operations you would use to manipulate the matrix stack (e.g., `load()`, `push()`, `pop()`, etc.).

Please use the PDF form to illustrate your command sequences and matrix stack operations. On the horizontal line, enter the command you would call (including the draw calls listed above); one command per line, please. In the sequence of boxes, list the current transformation matrix composition (i.e., all matrices that would be multiplied together to represent the final matrix transform, similar to what was demonstrated in class) using:

Transformation	Representation
Translate	T
Rotate	R
Scale	S
Viewing	V

For the translation and scaling transformations, please include numeric values for the parameters based on the model description above. For rotations, you're welcome to just use a variable name for the angular rotation, but please include a numeric value for the rotation axis (or appropriate function name as you might find in our **MV.js** or **MatrixStack.js** file, if applicable).