

# CS480 Quiz Assignment 1

Instructor: Sung-eui Yoon

Due Feb.-17 (Tue.) (at the beginning, 10:30am, of the class)

Name:

Student ID:

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You want to make a virtual merry-go-round as shown in below.

You define a horse object in a world space,  $w^t$ , and define the merry-go-round in another space, say, modeling space,  $m^t$ .

You know that the relationship between two spaces is like this:  $w^t \mathbf{Z} = m^t$



Question:

You want to rotate the horse in the center of the merry-go-round (i.e., in the modeling space) with a rotation matrix  $\mathbf{R}$ . To achieve this, what is the transformation matrix that you have to perform to the horse defined in the world space?

Your derivation:

(This should be based on the frame transformation that we studied in the class)

**Policies:** Everyone must turn in their own assignment. You can collaborate with others, but any work that you turn in should be your own. Turn in your homework at the class.