Practice: Ladder on Wall

- 1. Create a dynamic worksheet that visualizes the situation of a ladder of length 6 units lean against a wall.
 - (a) Open GeoGebra (English) or Change the language under Options of the pull-down menu.
 - (b) Create objects on the drawing pad as follows:

Objects to be created Action 1. Slider a Select "Slider" from menu button • Click on drawing pad • Set min = 0; max = 6; vertical ; width = 200 ; • Increment = 0.012. Point A • Type "A=(0,a)" in the input field 3. Circle c • Type "c = Circle[A, 6]" in the input field 4. Point B Select " • New Point" • Click on the point of intersection of circle c and x-Axis • 5. Segment L Select "Segment between two points" • Click on Point A and B • • Right click on segment and choose "redefine" from the sub-menu Change the definition to "L = Segment[A,B]" • 6. Mid-point C of AB Midpoint or center" Select " • Click on segment L • Right click on point C and choose "properties" Select "Show label:" and choose "Name and Value" • Check "Show Trace" • Change the color of point C • 7. Text for instruction Select "ABC Insert text" • Click on drawing pad ٠ Type the instruction • Right on circle c and uncheck "Show object" 8. Hide unnecessary objects •

- (c) Save the file named as "LadderOnWall.ggb".
- 2. The students may try to derive the equation of the locus of Point C.

