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| Input | Process | Output |
| double roomLength  double roomWidth  int shadeAmount  final double ROOM\_UNDER\_250 = 5500  final double ROOM\_UNDER\_500 = 10000  final double ROOM\_UNDER\_1000 = 17500  final double ROOM\_1000\_PLUS = 24000  double capacity = 0  final double LITTLE\_SHADE = .15  final double LOTTA\_SHADE = .10 | String outputHeader = “Air Conditioning Window Unit Cooling Capacity\n”  String shadeType  double roomArea = roomLength \* roomWidth  double adjustForShade , totalCapacity  Algorithm   1. Ask user to enter length of room in feet   roomLength   1. Ask user to enter width of room in feet   roomWidth   1. Calculate area of room   roomArea = roomLength \* roomWidth   1. Display a menu that asks user how much shade the room gets.   shadeAmount   1. Determine capacity needed for moderately shaded room, adust for shade   IF roomArea < 250  capacity = ROOM\_UNDER\_250  ELSE IF roomArea < 500  capacity = ROOM\_UNDER\_500  ELSE IF roomArea < 1000  capacity = ROOM\_UNDER\_500  ELSE capacity = ROOM\_1000\_PLUS  CASE 1:  adjustForShade = capacity \* LITTLE\_SHADE  totalCapacity = capacity + adjustForShade  shadeType = “Little Shade”  CASE 3:  adjustForShade = capacity \* LOTTA\_SHADE  totalCapacity = capacity – adjustForShade  shadeType = “Abundant Shade”  DEFAULT:  totalCapacity = capacity  shadeType = “Moderate Shade”   1. Create a String object in memory to display at top of output   String outputHeader   1. Display area of room, amount of shade, capacity.   roomArea  shadeType  totalCapacity | roomArea  shadeType  totalCapacity |