Homework #1 COP-1000

1. If productCost and productPrice are numeric variables, and productName is a string variable, which of the following statements are valid assignments? If a statement is not valid, explain why not.
   1. productCost = 100

**Valid** – 100 and product cost are both numeric.

* 1. productPrice = productCost

**valid** – both are numeric

* 1. productPrice = productName

**invalid** price is numeric product is string

* 1. productPrice = "24.95"

**invalid** – putting 24.95 in “” and the . make it a string.

* 1. 15.67 = productCost

**Invalid** the . in 15.67 makes it a string product cost is numeric

* 1. productCost = $1,345.52

**invalid** product cost is numeric and the right side is a string ($.,)

* 1. productCost = productPrice – 10  
     **valid** both sides are numeric with an operator
  2. productName = "mouse pad"  
     **valid** both sides are strings
  3. productCost + 20 = productPrice  
     **invalid** – variable should be on the right side and operators on right
  4. productName = 3-inch nails  
     **invalid** 3 inch nails must be double quoted
  5. productName = 43  
     **invalid** must be double quoted
  6. productName = "44"  
     **valid** both sides are strings
  7. "99" = productName   
     **invalid** variable must be on the left of assignment operator

1. Assume that speed = 10 and miles = 5. What is the value of each of the following expressions?
   1. speed + 12 - miles \* 2  
      10+12-5\*2 = 12
   2. speed + miles \* 3  
      10+5\*3 = 25
   3. (speed + miles) \* 3  
      (10+5)= 45
   4. speed + speed \* miles + miles  
      10+10\*5+5 = 65
   5. (10 - speed) + miles / miles  
      (10-10)+5/5 = 1