**Description**
The quark function single imputes a missing data.frame or matrix and then calculates the products and polynomials of the variables. A principal component analysis was used to extract 10 component scores that account for unique variance in the data per individual. A final data.frame is returned that is comprised of the original submitted data.frame or matrix and the 10 auxiliary variables. This data.frame can be used for a more accurate multiple imputation.

**Usage**
new.data.frame <- quark(old.data.frame, vecIDs)

**Arguments**
df The data.frame is a required component of quark. Without it, the procedures cannot be completed. The data.frame must contain less than 375,000 cells. This may look like 1,250 cases by 300 variables or 750 cases by 500 variables.
vecIDs The vector of IDs variable is the vector sent to the function that contains a list of ID, Time, and other variables that might inhibit accurate imputation and component analysis. You can utilize this as c(1,5,67:100). By using this vector, these variables will removed from the dataset before imputation and subsequent procedures. They will, however, be retained in the final dataset along with the auxiliary variables.

**Value**
The value returned will be a data.frame comprised of the originally submitted data.frame or matrix and the 10 auxiliary variables attached as the last 10 columns.

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**Examples**
#In order use quark, you must first specify a data.frame and a vector list of ID and Time variables to remove (optional).

#If you have ID and Time variables to remove
new.data.frame <- quark(old.data.frame, c(1:5,10))

#If you do not have any ID or Time variables to remove
new.data.frame <- quark(old.data.frame)