Class Abstract Element

classifieds:

symbol (String)

name (String)

atomic (int)

mass (double)

default constructor

ASSERTION ALGORITHM

symbol = “ “

name = “ “

atomic = 1

Mass = 0.01

copy constructor

IMPORT inElement (ElementClass)

ASSERTION ALGORITHM:

symbol = inSymbol

name = inName

atomic = inAtomic

Mass = inMass

Getters

getSymbol

Export symbol

ALGORITHM:

Export copy of symbol

getName

Export namel

ALGORITHM:

Export copy of name

getAtomic

Export atomic

ALGORITHM:

Export copy of atomic

getMass

Export mass

ALGORITHM:

Export copy of mass

setSymbol

IMPORT inSymbol (String)

ASSERTION ALGORITHM:

IF inSymbol String > 2 chars, cut string to 2

symbol = inSymbol

setName

IMPORT inName (String)

ASSERTION ALGORITHM:

name = inName

setAtomic

IMPORT inAtomic (int)

ASSERTION ALGORITHM:

IF 0 < inAtomic <101

atomic = inAtomic

setMass

IMPORT inMass double

ASSERTION ALGORITHM:

IF mass > 0.00

mass = inMass

Equals

IMPORT inElement

ASSERTION ALGORITHM:

If symbol == getSymbol

If name == getName

If atomic == getAtomic

If mass == getMass

isEqual = true

Else

isEqual = false

toString

IMPORT nothing

EXPORT elementString

ASSERTION ALGORITHM: elementString = “<” + symbol + "," + name + "," + atomic + "," + mass + “/>”