

Home (/support) > Support (/support)

This is a PDF version of Article CS164889 and may be out of date. For the latest version click [here](#)  
**Article - CS164889**

## How to clear the numerical values defined for the variables while performing symbolic calculations in Mathcad Prime

Created: 17-Mar-2014 | Modified: 14-Nov-2016 | Last Seen: 16-Apr-2020

### Applies To

---

- Mathcad Prime 2.0 to 3.1

### Description

---

- How to stop the numerical values of variables getting substituted in the symbolic calculations?
  - Similar to definition "x:=x" as it was with Mathcad 15.0 and earlier
- How to clear / turn off the numerical values defined for the variables while performing symbolic calculations?
- Is it possible to undefine a variable / list of variables?
- Is there way to do a symbolic solve and keep the answer as a variable when the variables are defined ?

### Resolution

---

- Use the function **clear.sym()** to clear the variable/s' definition only for symbolic calculations.
  - Here pass the list of variables need to be cleared as arguments to this function
  - Note that these variables can be used in further numerical calculations
  - **Example:**

$x := 5$      $y := 5$

$$\frac{d}{dx} x^3 \cdot y + \frac{d}{dy} y^3 \cdot x = 750$$

`clear.sym(x, y)`    This will clear the variables  $x, y$  for symbolic calculations.

•

$$\frac{d}{dx} x^3 \cdot y + \frac{d}{dy} y^3 \cdot x \rightarrow 3 \cdot x^2 \cdot y + 3 \cdot x \cdot y^2$$

Note that  $x, y$  can still be used in numerical calculations.

$x = 5$

$x2 := x + 10 = 15$

$y = 5$

$y2 := y + 15 = 20$

- Use **clear()** to undefine the variable completely, that is for both numerical and symbolic calculations

- Example:

$a := 5$      $b := 10$

$$d := a^2 + b^2 = 125$$

`clear(a, b)`

This will undefine the variables completely (for both numerical and symbolic calculation)

$a = ?$

$b = ?$

This variable is undefined. Check that the label is set correctly.

As we can see here, Mathcad can no longer be able to recognize these variables. Now we can define  $a, b$  variables with new values if required.

Legal Policy Do not duplicate or distribute without written permission from PTC

Was this information helpful?

No

Yes