

Re: MuPad: solve problem

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From: Vladimir Bondarenko (vb_at_cybertester.com)

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Marco wrote:

- > *MuPad shows a very strange behaviour in using solve on*
- > *expressions which contain roots:*
- > *When I try to solve the (trivial) expression*
- > *solve({sqrt(x)=y,y=b},{x,y}) I get the senseless*
- > *solution {}.*

This bug is fixed in MuPAD 3.1/3.0 but both of them returns now

```
piecewise([- y + x^(1/2) = 0 and - b + y = 0, {}],  
[- y + x^(1/2) <> 0 or - b + y <> 0, {}])
```

which itself constitutes a new bug – because it is trivial to solve this and Derive 6.1/Maple 9.5.1/Mathematica 5.1 can do it.

```
SOLVE([SQRT(x) = y, y = b], [x, y])  
solve({sqrt(x) = y, y = b}, {x, y});  
Solve[{Sqrt[x] == y, y == b}, {x, y}]
```

```
[x = IF(b > 0, b^2) AND y = b]  
{y = b, x = b^2}  
{x -> b^2, y -> b}
```

Best wishes,

Vladimir Bondarenko

<http://www.cybertester.com/>

<http://maple.bug-list.org/>

<http://www.CAS-testing.org/>