



my_math_3.py - Notepad



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```
"""A third version of our module with mathematics routines."""
```

```
from math import isfinite
```

```
# factorial is omitted here for brevity
```

```
def sqrt(number: float) -> float:
```

```
    """
```

```
    Compute the square root of a given `number`.
```

```
    :param number: The number to compute the square root of.
```

```
    :return: A value `v` such that `v * v` is approximately `number`.
```

```
    """
```

```
    if number <= 0.0: # Fix for the special case `0`:
```

```
        return 0.0 # We return 0; for now, we ignore negative values.
```

```
    if not isfinite(number): # Fix for case `+inf` and `nan`:
```

```
        return number # We return `inf` for `inf` and `nan` for `nan`.
```

```
    guess: float = 1.0 # This will hold the current guess
```