

### VBA (Decimal zu Bruch):

from fractions import Fraction

from xlwings import func

Function DezimalZuBruch(ByVal Zahl As Double) As String

Dim maxNenner As Long

Dim Zähler As Long

Dim Nenner As Long

Dim minDiff As Double

Dim besteZ As Long

Dim besteN As Long

Dim i As Long

' Maximal erlaubter Nenner (je höher, desto genauer)

maxNenner = 1000

minDiff = 1 ' Startwert hoch ansetzen

For i = 1 To maxNenner

    Zähler = Round(Zahl \* i)

    If Abs(Zähler / i - Zahl) < minDiff Then

        besteZ = Zähler

        besteN = i

        minDiff = Abs(Zähler / i - Zahl)

    End If

Next i

' Bruch kürzen

Dim ggt As Long

ggt = GGT(besteZ, besteN)

```
besteZ = besteZ \ ggt
```

```
besteN = besteN \ ggt
```

```
DezimalZuBruch = besteZ & "/" & besteN
```

```
End Function
```

```
' Hilfsfunktion: größter gemeinsamer Teiler (Euklidischer Algorithmus)
```

```
Function GGT(a As Long, b As Long) As Long
```

```
Do While b <> 0
```

```
    Dim temp As Long
```

```
    temp = b
```

```
    b = a Mod b
```

```
    a = temp
```

```
Loop
```

```
GGT = a
```

```
End Function
```

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VBA: 703 Zeichen

**PYTHON (Decimal zu Bruch):**

```
@func
```

```
def dezimal_zu_bruch(wert):
```

```
    try:
```

```
        bruch = Fraction(wert).limit_denominator()
```

```
        return f"{bruch.numerator}/{bruch.denominator}"
```

```
    except Exception as e:
```

```
        return f"Fehler: {e}"
```

**PYTHON:** 159 Zeichen

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