BezOptymalizacji6

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[1]:
```
using Printf
using Core

function P(k)
    if k == 2
        return BigFloat(2, 128)
end
return power(2, k-1) * s(k)
end
```

[1]: P (generic function with 1 method)

[6]:
```
function s(k)
    if k == 2
        return BigFloat(1, 128)
    end
    return sqrt(1/2*(1-c(k-1)))
end
```

[6]: s (generic function with 1 method)

[7]:
```
function c(k)
    if k==2
        return BigFloat(0, 128)
    end
    return sqrt(1/2*(1+c(k-1)))
end
```

[7]: c (generic function with 1 method)

[8]:
```
function power(a, b)
    if b == 0
        return BigFloat(1, 128)
    end
    return a*power(a, b-1)
end
```

[8]: power (generic function with 1 method)

[9]:
```
k = 2
while k<=256
    @printf("%llf %d \n", P(k), k)
    k = k+1
end
```

```
2.000000 2
2.828427 3
3.061467 4
3.121445 5
3.136548 6
3.140331 7
3.141277 8
3.141514 9
3.141573 10
3.141588 11
3.141591 12
3.141592 13
3.141593 14
3.141593 15
3.141593 16
...
3.141593 120
3.141593 121
3.141592 122
3.141597 123
3.141597 124
3.141519 125
3.141208 126
3.142451 127
3.142451 128
3.162278 129
3.162278 130
2.828427 131
0.000000 132
0.000000 133
0.000000 134
...
0.000000 255
0.000000 256
```

[ ]: