

Tubes 1 Visualisasi Data

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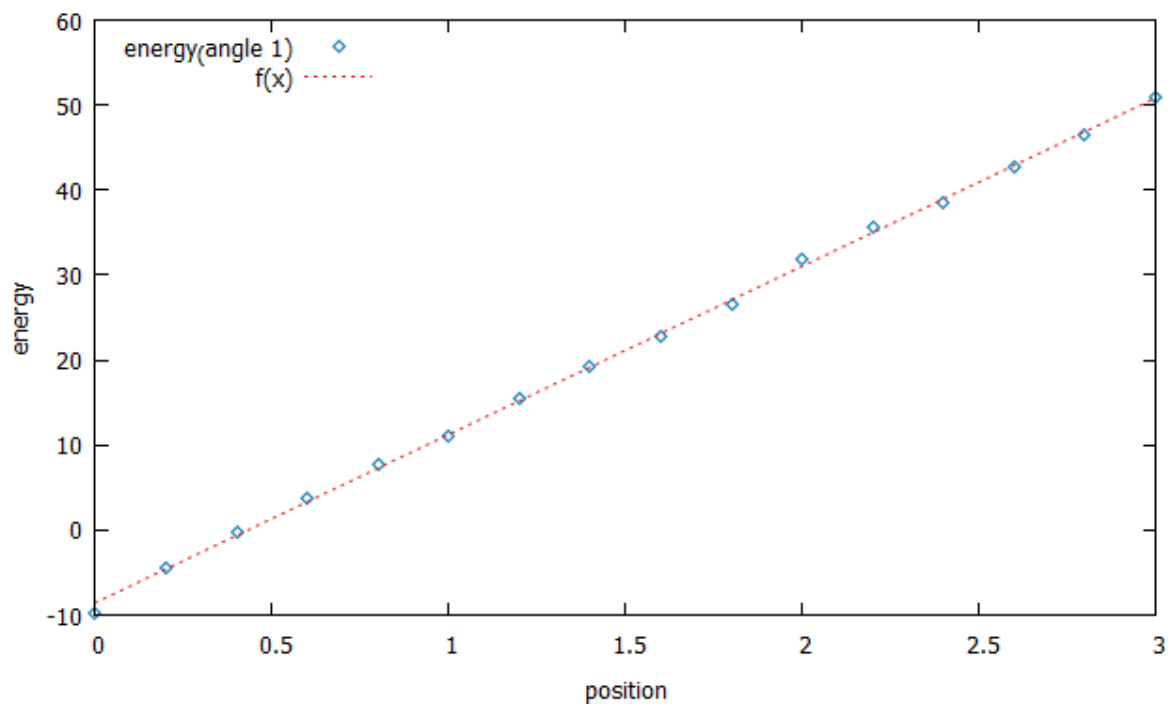
Kelas : MCE-40-GAB

Soal 1

Sudut 1

```
Final set of parameters
=====
a          = 19.7886
b          = -8.55081
```

Persamaan $\Rightarrow f(x) = 19.7886x - 8.55081$



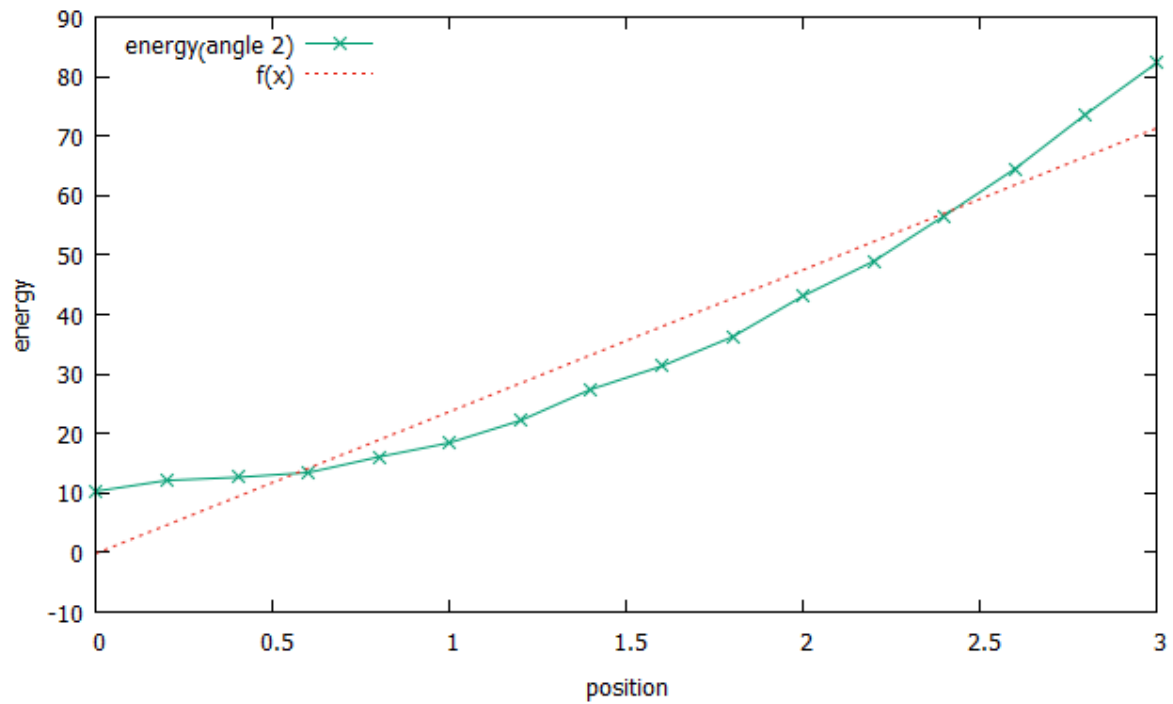
$f(x) = 19.7886x - 8.55081$, $x=3.4$

$f(x) = 58.73043$

Sudut 2

```
Final set of parameters
=====
a          = 23.8101
b          = -0.126716
```

Persamaan $\Rightarrow f(x) = 23.8101x - 0.126716$



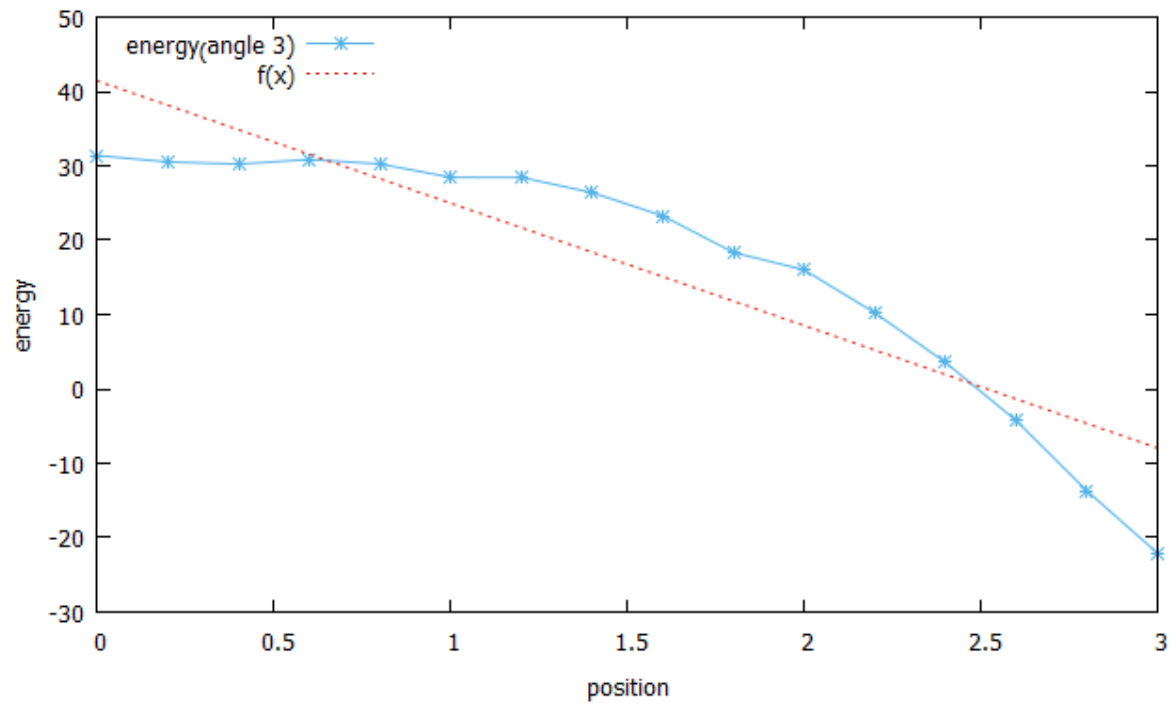
$$f(x) = 23.8101x - 0.126716, x=3.4$$

$$f(x) = 80.827624$$

Sudut 3

```
Final set of parameters
=====
a           = -16.4505
b           = 41.4157
```

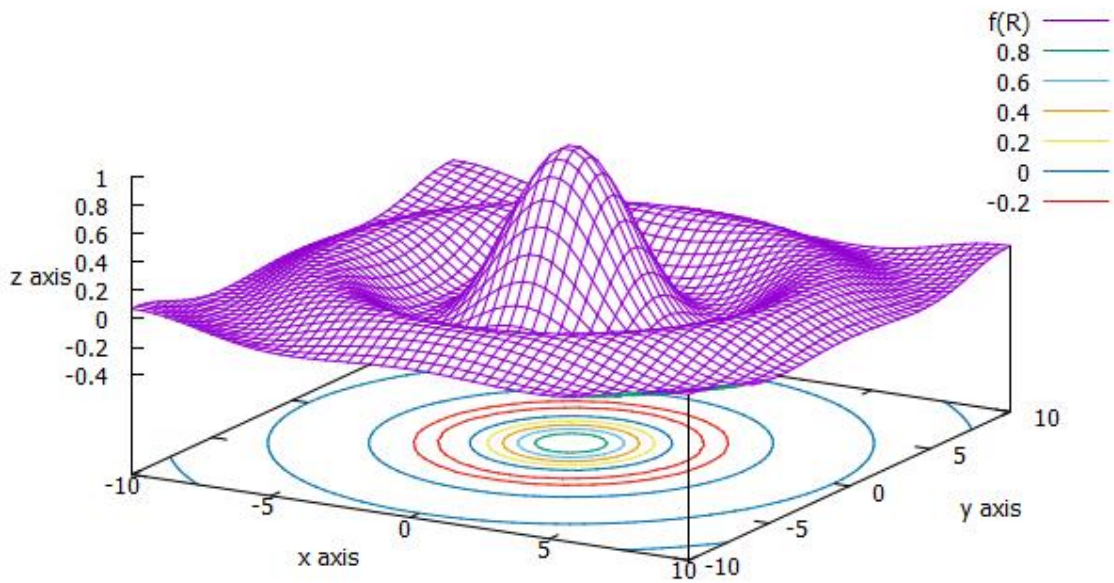
Persamaan $\Rightarrow f(x) = -16.4505x + 41.4157$



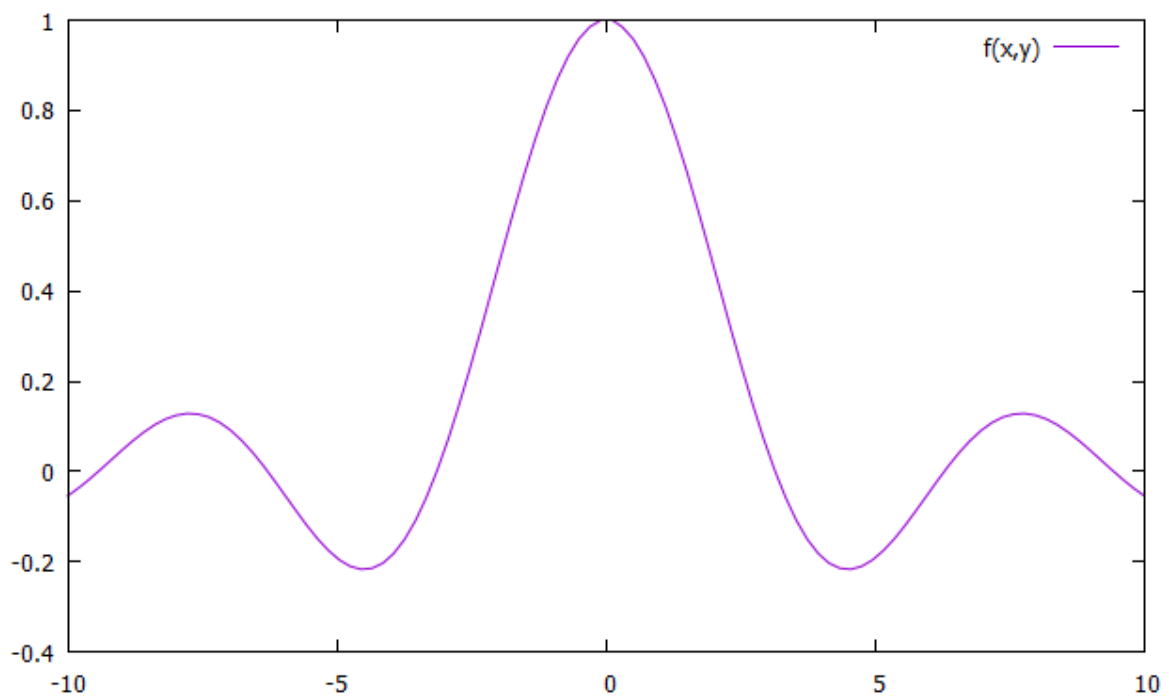
$$f(x) = -16.4505x + 41.4157, x=3.4$$

$$f(x) = -14.516$$

Soal 2



Yang menjadikan nilai maximum, $x = 0$ dan $y = 0$



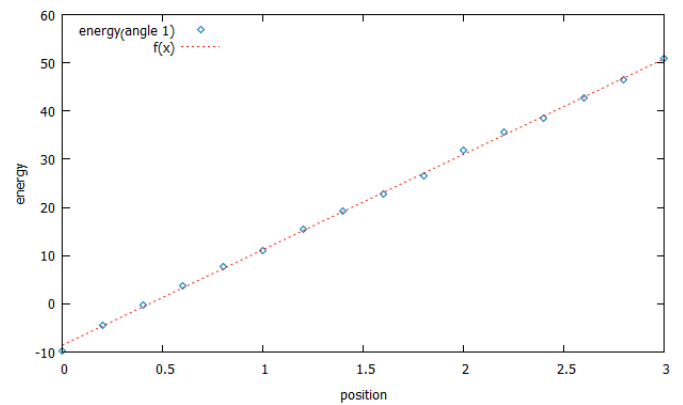
Saat diplot $f(x,y)$ dengan nilai x dan y nya 0, nilai maxnya adalah 1

Soal 3

```

1 set xrange [0:3]
2
3 set key top left
4 set xlabel "position"
5 set ylabel "energy"
6
7 a = 0.1
8 b = 0.1
9 f(x) = a*x + b
10 fit f(x) "data1.dat" using 1:2 via a, b
11
12 p "data1.dat" u 1:2 w p pt 12 lc 6 t "energy_(angle 1)",\
13 f(x) w l dt 3 lc 7

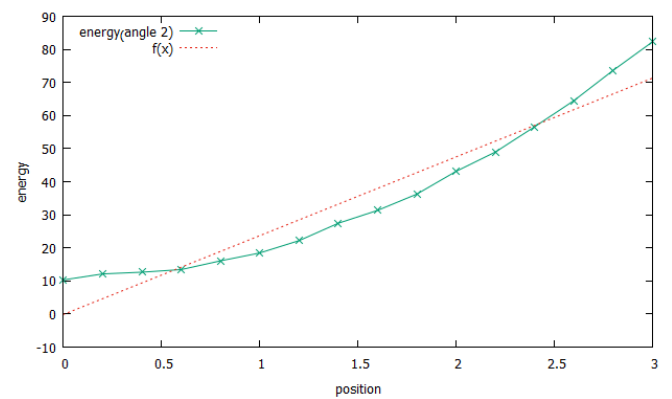
```



```

1 set xrange [0:3]
2
3 set key top left
4 set xlabel "position"
5 set ylabel "energy"
6
7 a = 0.1
8 b = 0.1
9 f(x) = a*x + b
10 fit f(x) "data1.dat" using 1:3 via a, b
11
12 p "data1.dat" u 1:3 w lp ls 2 t "energy_(angle 2)",\
13 f(x) w l dt 3 lc 7

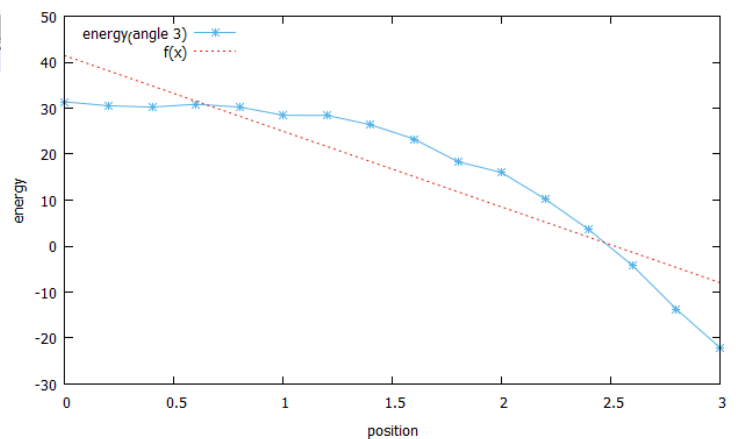
```



```

1 set xrange [0:3]
2
3 set key top left
4 set xlabel "position"
5 set ylabel "energy"
6
7 a = 0.1
8 b = 0.1
9 f(x) = a*x + b
10 fit f(x) "data1.dat" using 1:4 via a, b
11
12 p "data1.dat" u 1:4 w lp ls 3 t "energy_(angle 3)",\
13 f(x) w l dt 3 lc 7

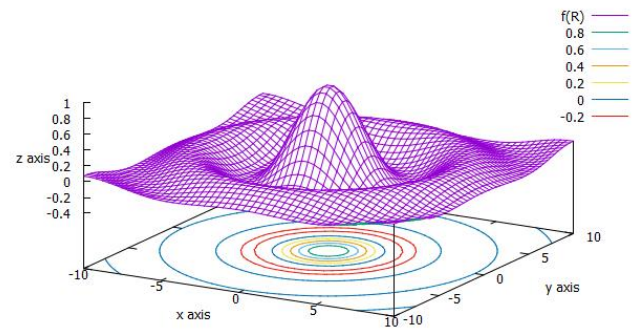
```



```

1  set xlabel "x axis"
2  set ylabel "y axis"
3  set zlabel "z axis"
4
5  set xrange [-10:10]
6  set yrange [-10:10]
7
8  set hidden3d
9  set isosample 50
10 set contour
11 set cntrparam levels 10
12 # set nosurface
13 # set view 0,0
14
15 f(x, y) = sin((x**2 + y**2 + 10*(-5))**0.5) / (x**2 + y**2 +
16 10*(-5))**0.5
17 splot [-10:10] [-10:10] f(x, y) t "f(R)"

```



```

1  x = 0
2  y = 0
3
4  f(x, y) = sin((x**2 + y**2 + 10*(-5))**0.5) / (x**2 + y**2 +
5  10*(-5))**0.5
6  p f(x, y)

```

