

Problem Set 5.1 13

file: 1.py

result:

$$F_x(x) = 945.124048x^0 + 52.713616x^1 + -0.217632x^2 + -0.000000x^3$$

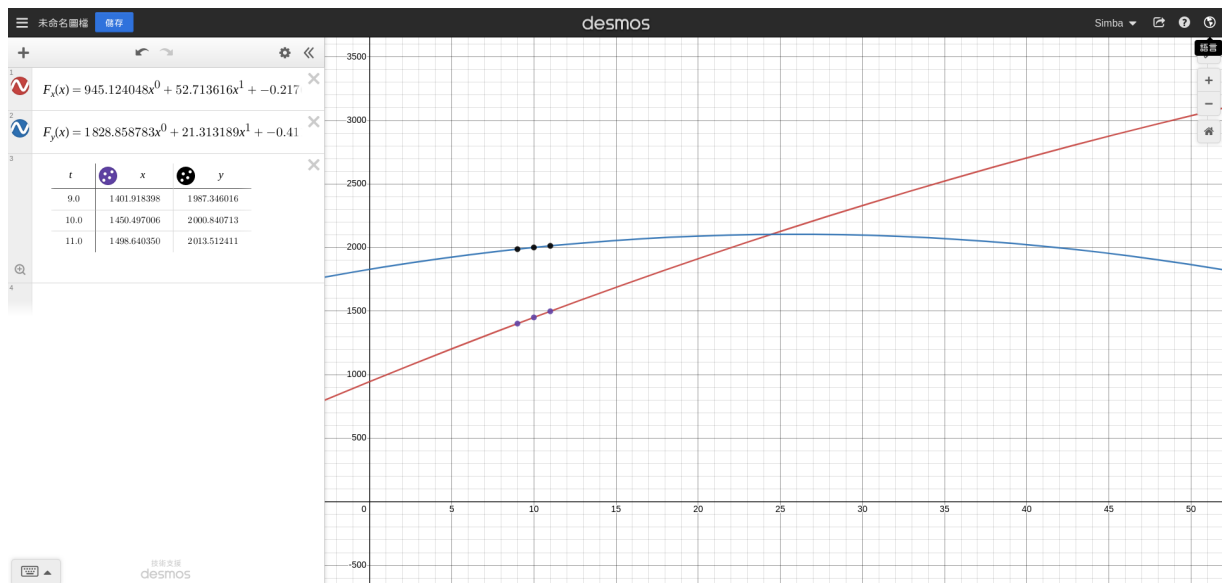
$$F_y(x) = 1828.858783x^0 + 21.313189x^1 + -0.411500x^2 + -0.000000x^3$$

$$dF_x/dt(x) = 52.713616x^0 + -0.435264x^1 + -0.000000x^2$$

$$dF_y/dt(x) = 21.313189x^0 + -0.822999x^1 + -0.000000x^2$$

t	x	y
9.0,	1401.918398,	1987.346016
10.0,	1450.497006,	2000.840713
11.0,	1498.640350,	2013.512411

$v(10) = 50.099442$, climb angle = 15.137988°



Problem Set 6.1 13.

file: 2.py result:

$$v_0 = 2.4976748324943903, \quad n = 32$$

Problem Set 7.2 16.

file: 3.py

result:

period is 0.382267s

