## Kārlis Zariņš

## May 19

```
t_s aw = (-2) : 0.01 : 0;
k = (-2-0)/(-2-0)
delay = 0;
y_s aw = k * (t_s aw - delay);
plot(t_s aw, y_s aw, 'k')
hold on
t_s in = (-2) : 0.01 : 2;
A0 = 0.5;
A = 0.5;
T = (3-(-3))/(1/3);
f = 1/T;
delay = 0;
y_s in = A0 + A * sin(2 * pi * f * (t_s in - delay));
plot(t_sin, y_sin, 'r')
t_s in = (-2) : 0.01 : 2;
A0 = 0;
A = 1;
T = (2-(-2))/(1/2);
f = 1/T;
delay = 0;
y_s in = A0 + A * sin(2 * pi * f * (t_s in - delay));
plot(t_sin, y_sin, b')
t_c onst1 = 0:0.01:1;
y_const1 = 0 * ones(size(t_const1));
t_const2 = 1:0.01:2;
y_const2 = 1 * ones(size(t_const2));
t_const = [t_const1, t_const2];
y_const = [y_const1, y_const2];
plot(t_const, y_const, 'g')
t_c onstr = (-2) : 0.01 : 0;
y_constr = 0 * ones(size(t_constr));
t_s awr = 0:0.01:2;
k = (0-2)/(0-2)
delay = 0;
y_s awr = k * (t_s awr - delay);
```

```
untitled-eps-converted-to.pdf
```

```
\begin{split} &\mathbf{t}_relu = [t_constr, t_sawr];\\ &\mathbf{y}_relu = [y_constr, y_sawr];\\ &\mathbf{plot}(\mathbf{t}_relu, y_relu,'m')\\ &\mathbf{axis}([-2\ 2\ -2\ 2])\\ &\mathbf{legend}('\mathrm{ld'}, '\mathrm{Sigmoid'}, '\mathrm{tanh'}, '\mathrm{Treshold'}, '\mathrm{ReLu'})\\ &\mathbf{z} = \mathbf{plot}(\mathbf{t}_relu, y_relu)\\ &\mathbf{za} = \mathbf{get}(\mathbf{z}, '\mathrm{Parent'});\\ &\mathbf{set}(\mathbf{za}, '\mathrm{XTick'}, [-2\ -1\ 0\ 1\ 2]);\\ &\mathbf{set}(\mathbf{za}, '\mathrm{YTick'}, [-2\ -1\ 0\ 1\ 2]); \end{split}
```