

# 1D Convolution Examples

## Part 1

a)  $[1 \ 2 \ 3 \ 4 \ 5] [-1 \ 1]$

b)  $[8 \ 6 \ 4 \ 2 \ 0 \ -2] [-1 \ 1]$

c)  $[2 \ 0 \ 2 \ 0 \ 2 \ 0 \ 2] [\frac{1}{2} \ \frac{1}{2}]$

e)  $[0 \ 3 \ 6 \ 9 \ 3 \ 9 \ 6] [\frac{1}{3} \ \frac{1}{3} \ \frac{1}{3}]$ , centered

## Part 2

$[6 \ 4 \ 6 \ 4 \ 6 \ 4 \ 6] [\frac{1}{3} \ \frac{1}{3} \ \frac{1}{3}]$ , centered

convolve these functions using full, same, and valid convolutions