

In order to ensure the impulse response does not exceed the maximum allowed value of  $2^{15}-1$ , the gain should set no more than 32767.

```
yingdembp-2:demo3-EXE5 my$ python3 filter_16_trans.py
a0 = 1.000000
a1 = -1.900211
a2 = 0.998001
b0 = 1.000000
b1 = -0.950105
b2 = 0.000000
* Finished *
yingdembp-2:demo3-EXE5 my$ █
```