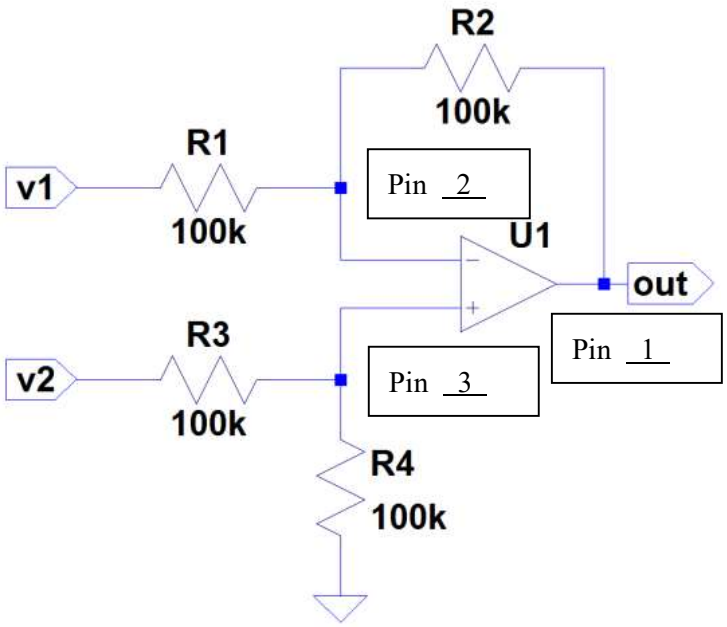
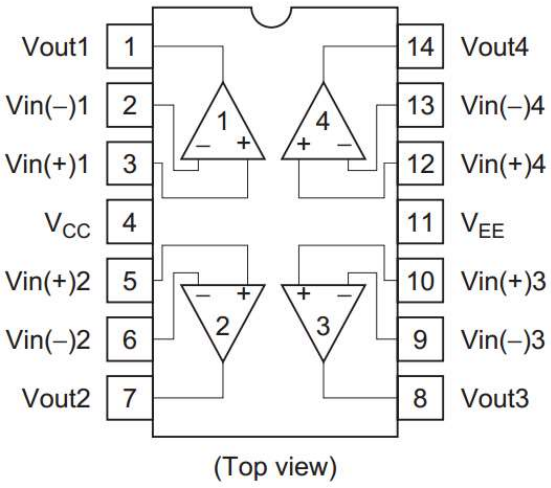
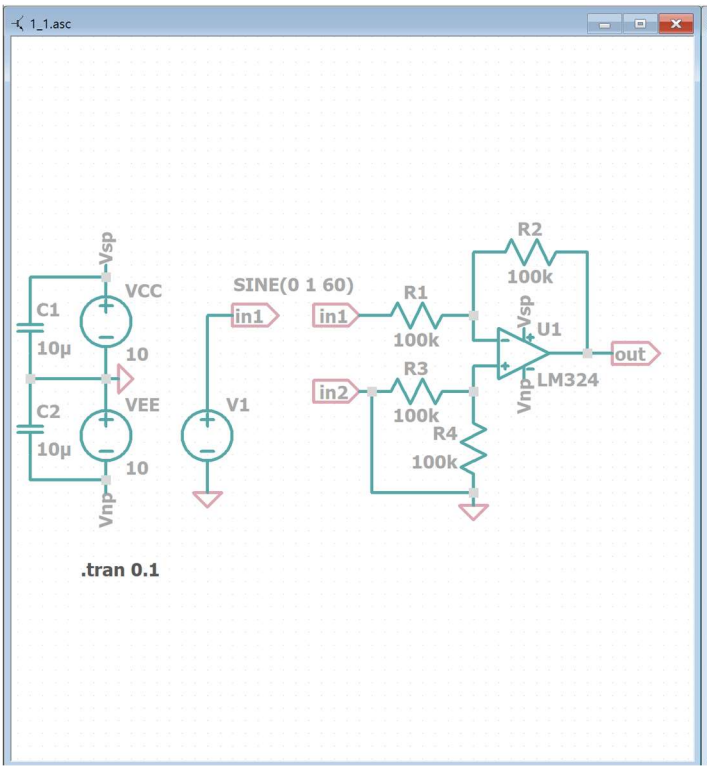
REPORT

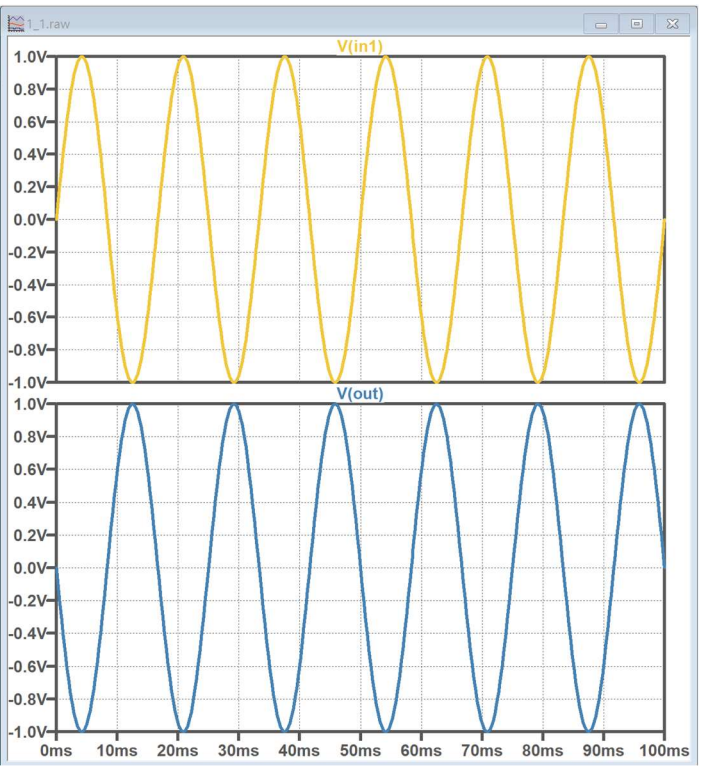
Experiment 1: Difference Amplifier

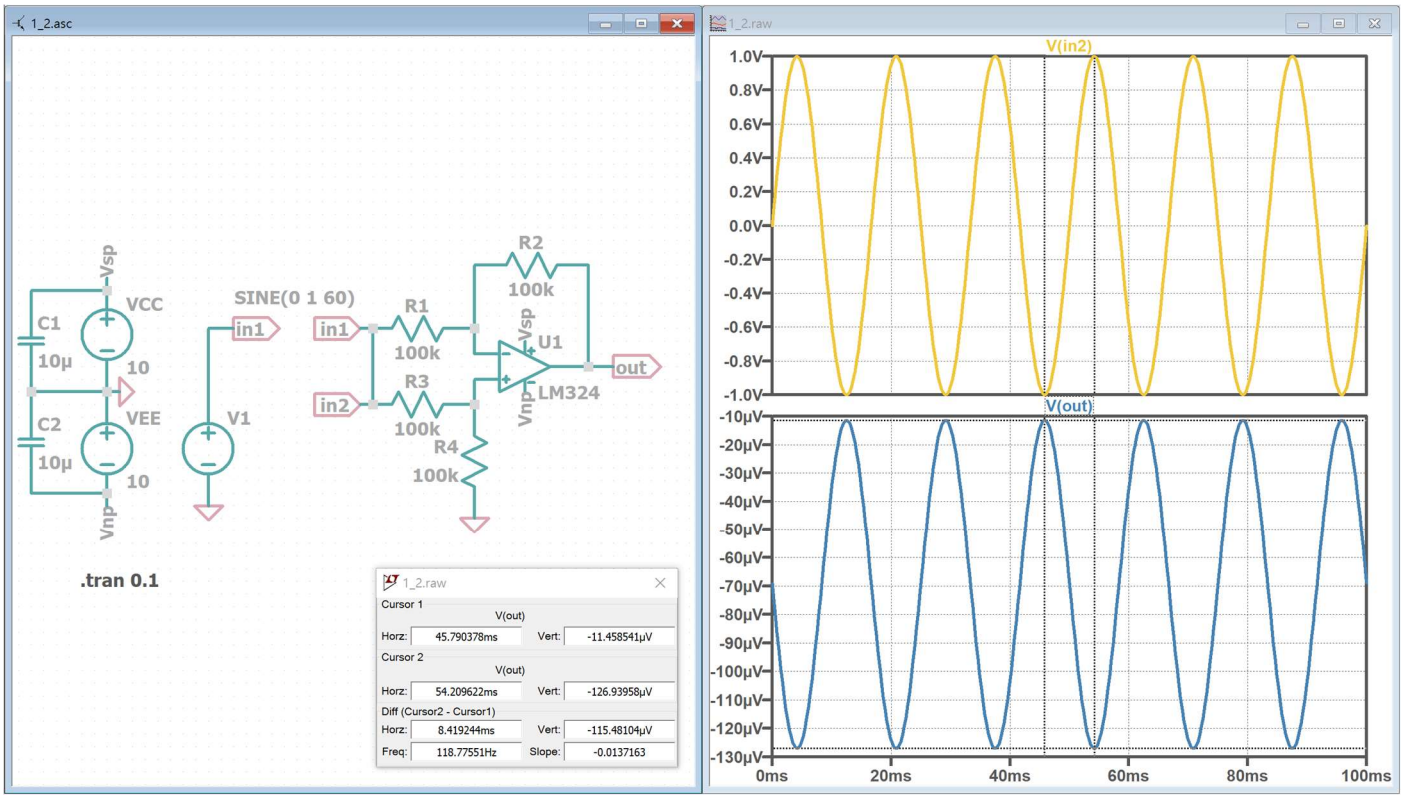
Write down your pinout.











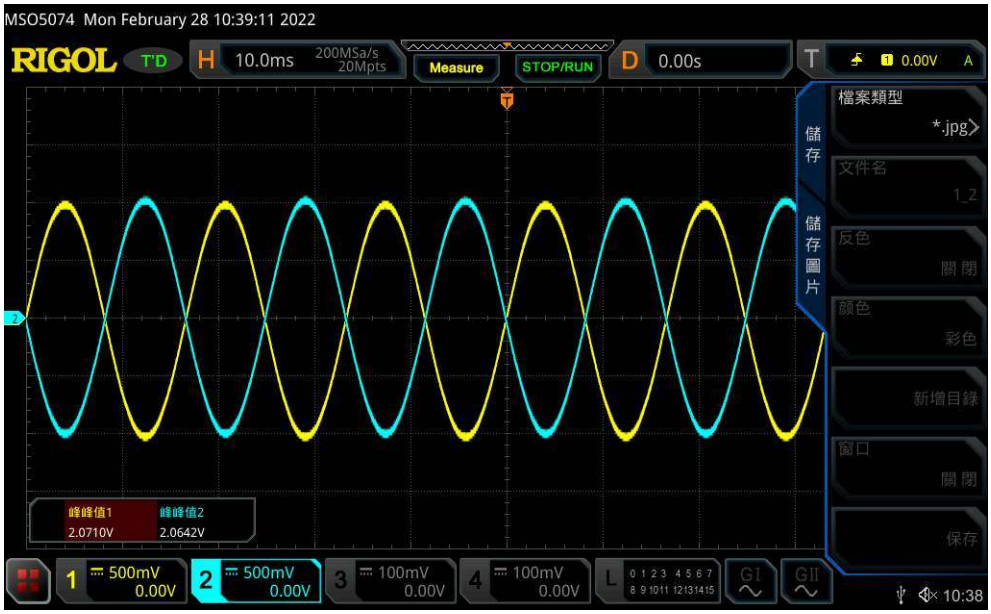
CMRR=78.786 dB

Q: power 電容並聯一大一小穩壓。

2.

$v_{1,pp}$ (V)	$v_{2,pp}$ (V)	$v_{d,pp}$=v2-v1 (V)	$v_{out,pp}$ (V)	A_{DM} (V/V)	Phase (vout->v1) (degree)
2.071	**0**	**2.071**	**2.064**	**0.997**	**180**

v_{out} and v1 waveform:

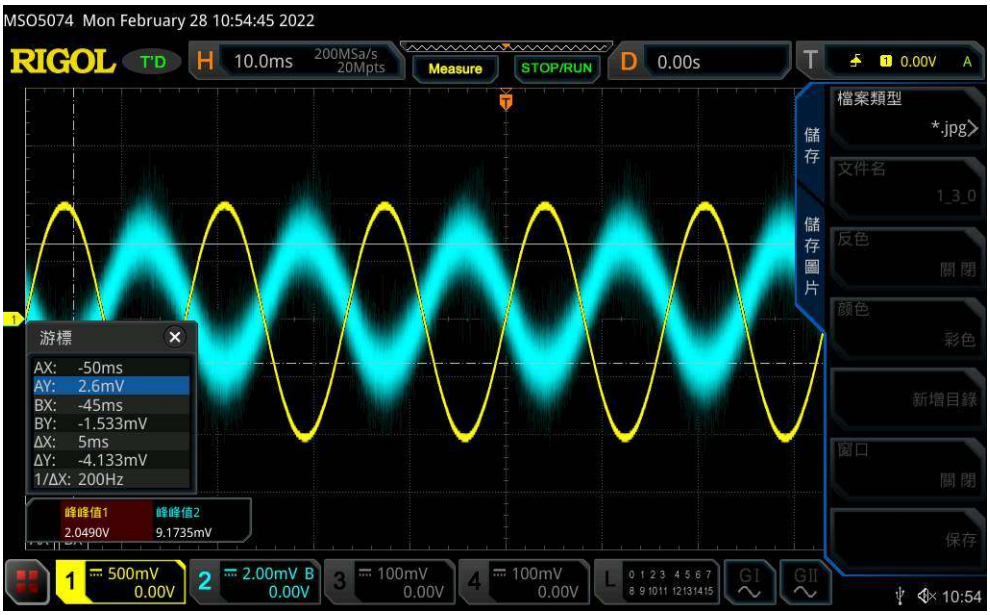


3.

$v_{1,pp}$ (V)	$v_{out,pp}$ (V)	A_{CM} (V/V)	Phase (v_{out}->v_1) (degree)
2.049	**4.133m**	**2.017m**	**180**

Q:頻寬限制

v_{out} and v1 waveform:

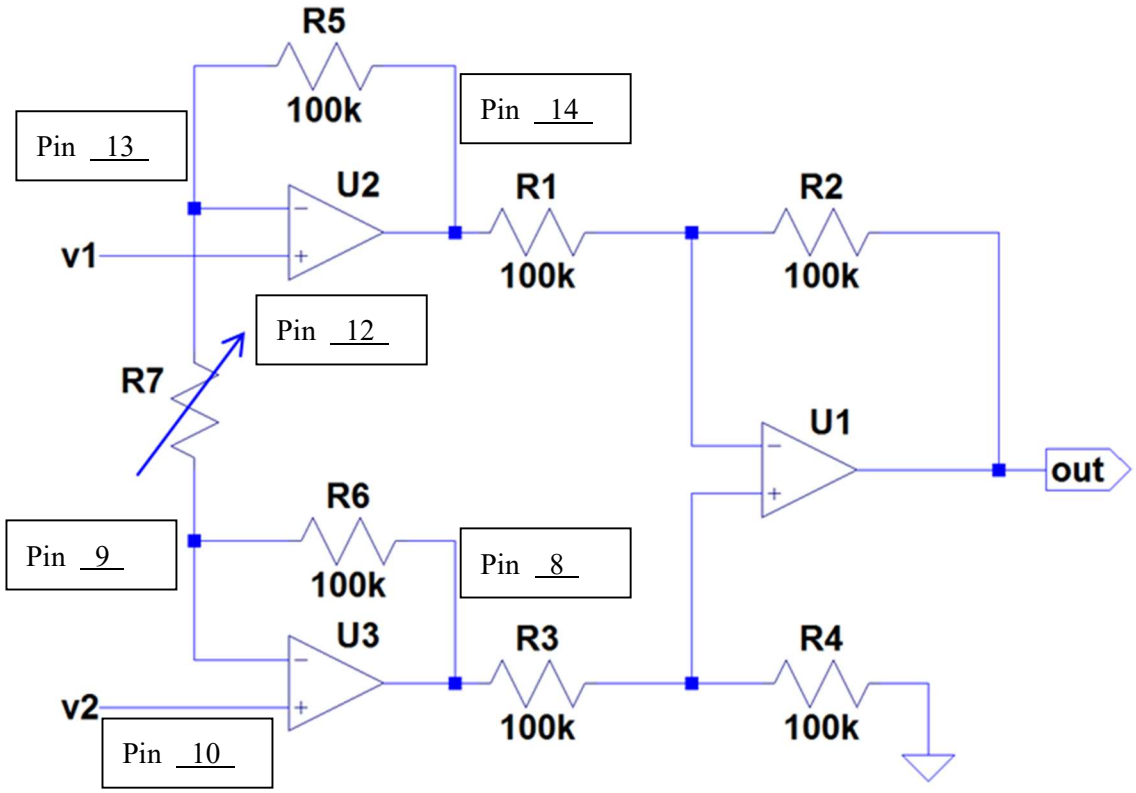


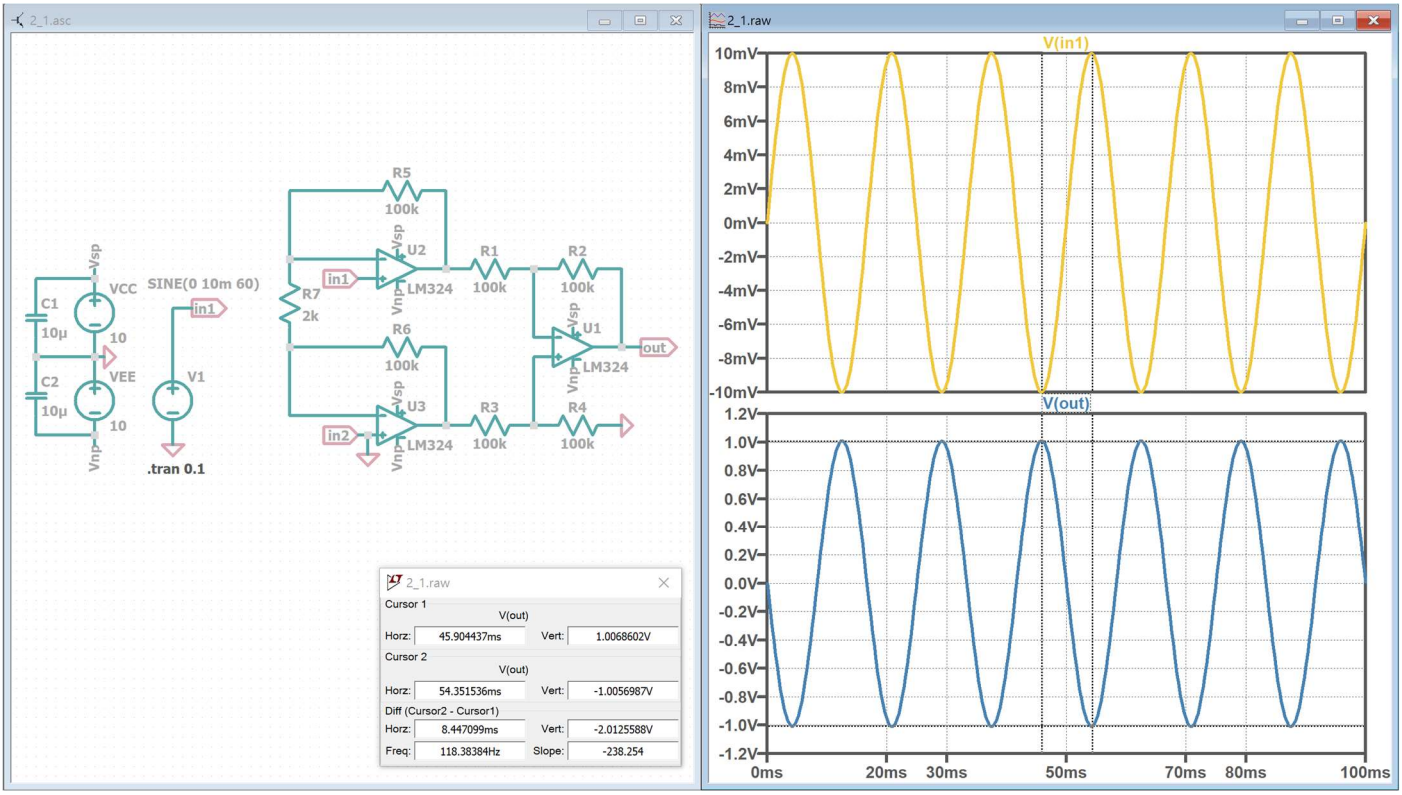
4.

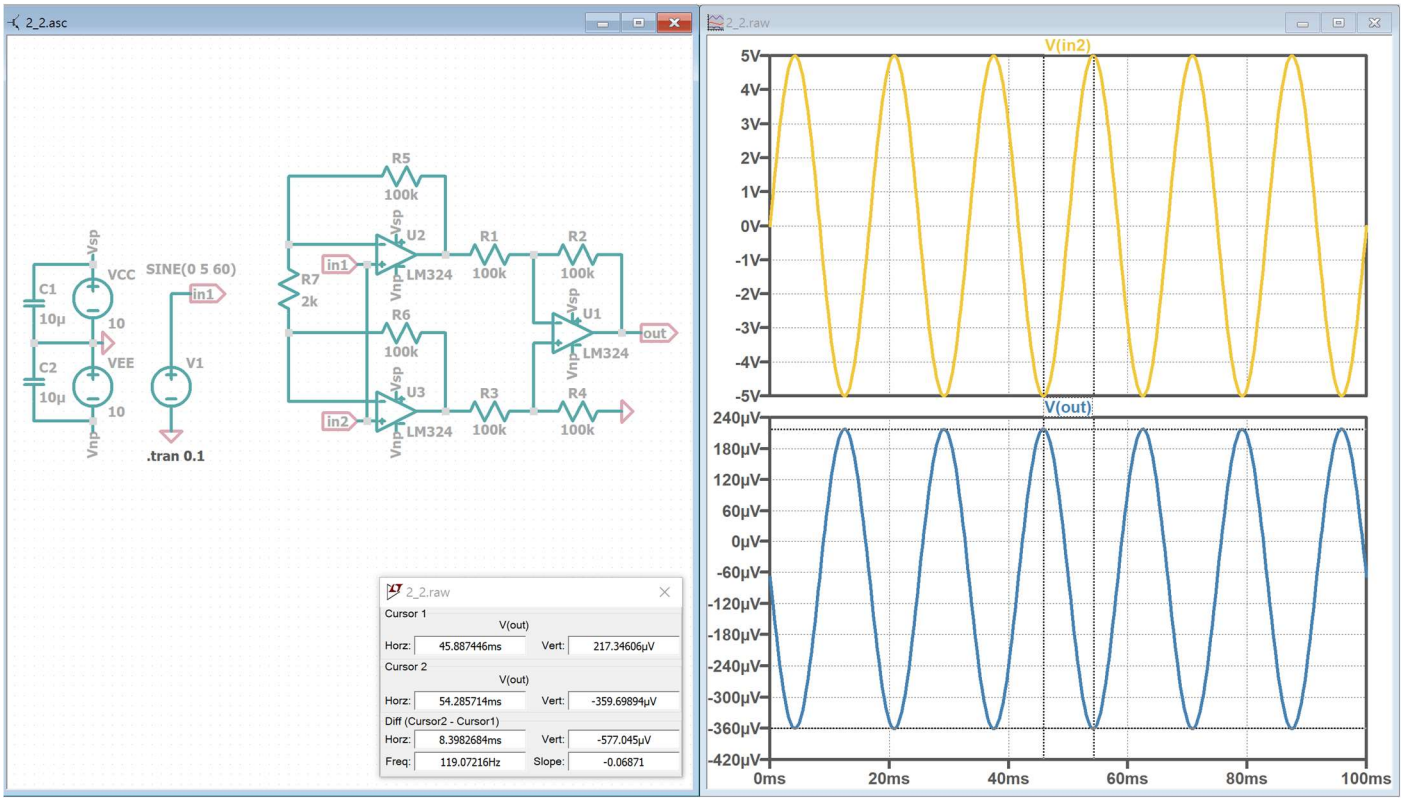
$$CMRR = \left|\frac{A_{DM}}{A_{CM}}\right| = \underline{\textbf{53.88 dB}}$$

Experiment 2: Instrumentation Amplifier

Write down your pinout.



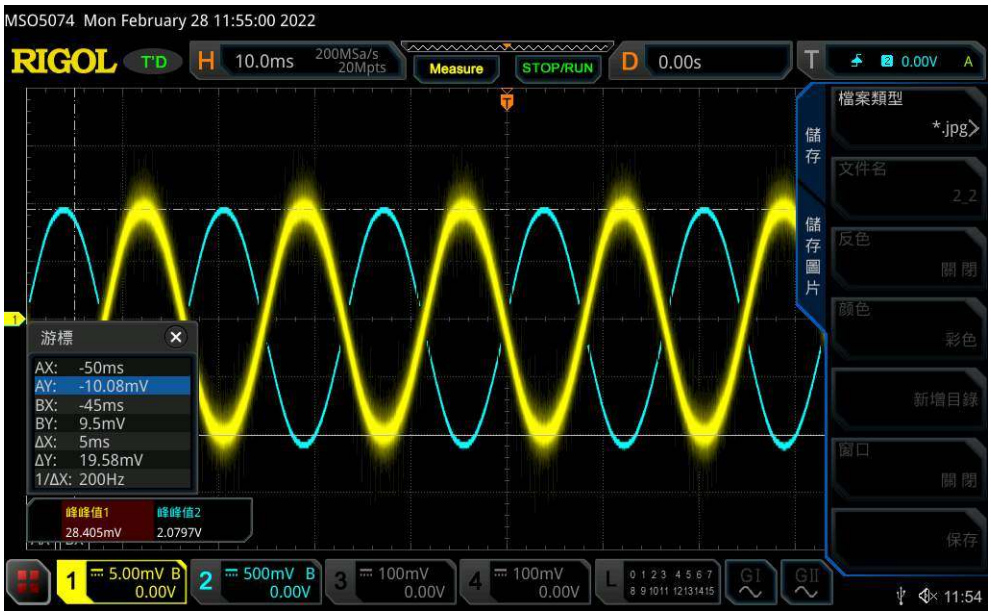




2.

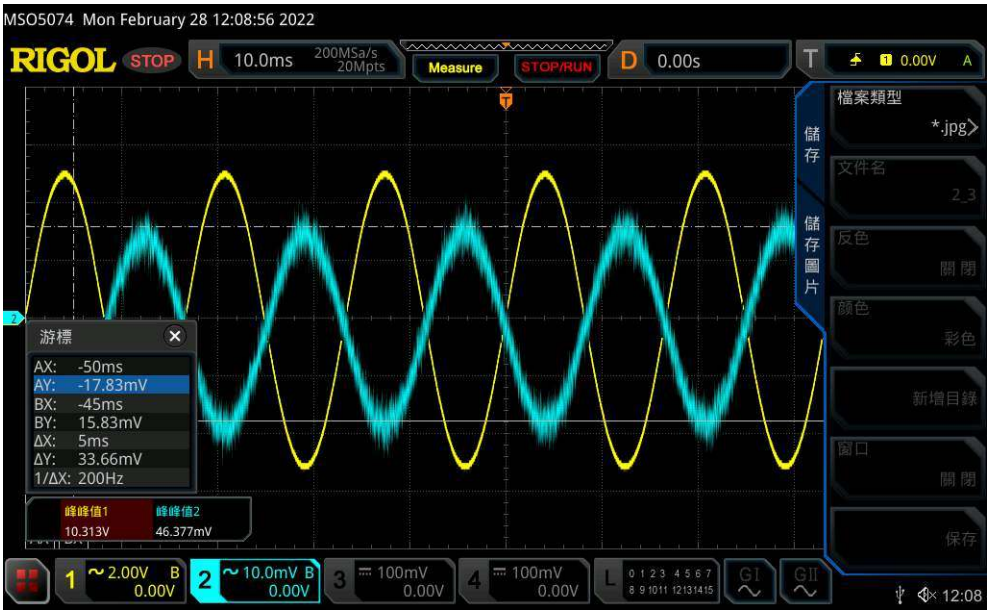
$v1_{,pp}$ (V)	$v2_{,pp}$ (V)	$vd_{,pp}$=v2-v1 (V)	$v_{out,pp}$ (V)	A_{DM} (V/V)	Phase (vout->v1) (degree)
19.58m	**0**	**19.58m**	**2.075**	**106**	**180**

v_{out} and v1 waveform:



v1,pp (V)	vout,pp (V)	A_{CM} (V/V)	Phase (vout->v1) (degree)
10.313	**33.66m**	**3.264m**	**180**

v_{out} and v1 waveform:

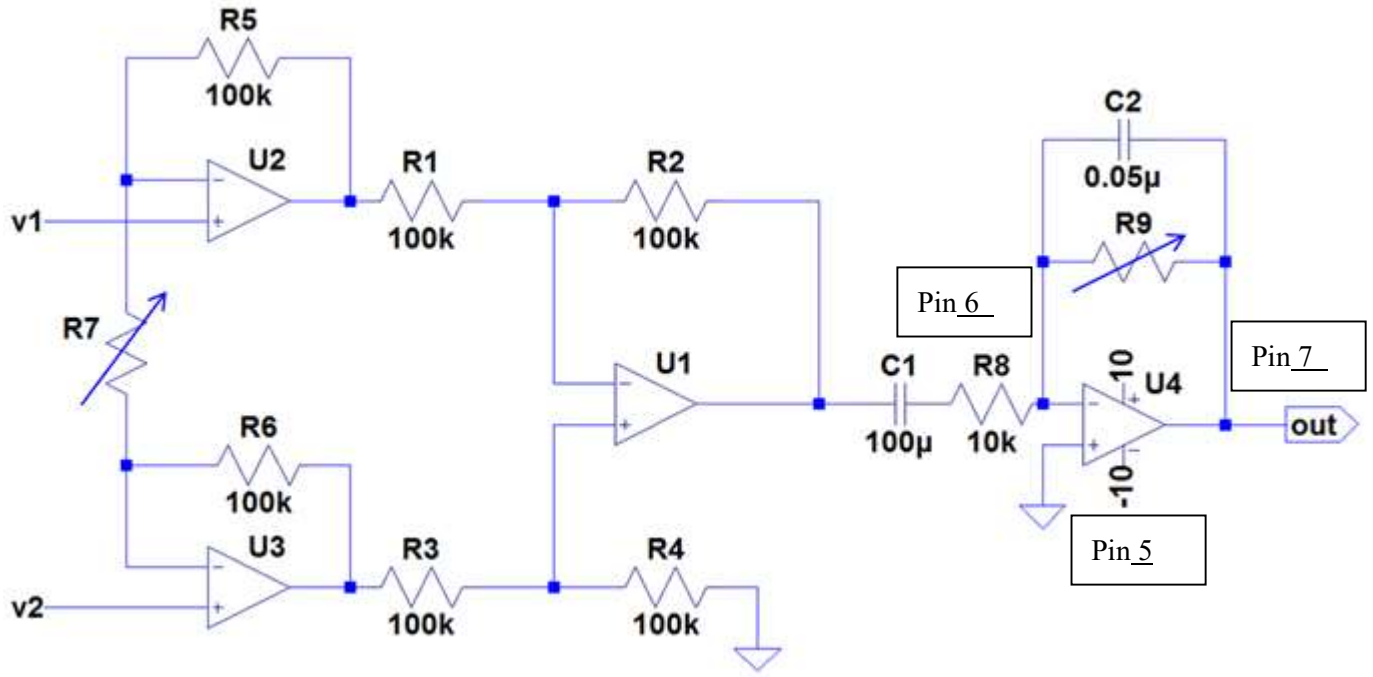


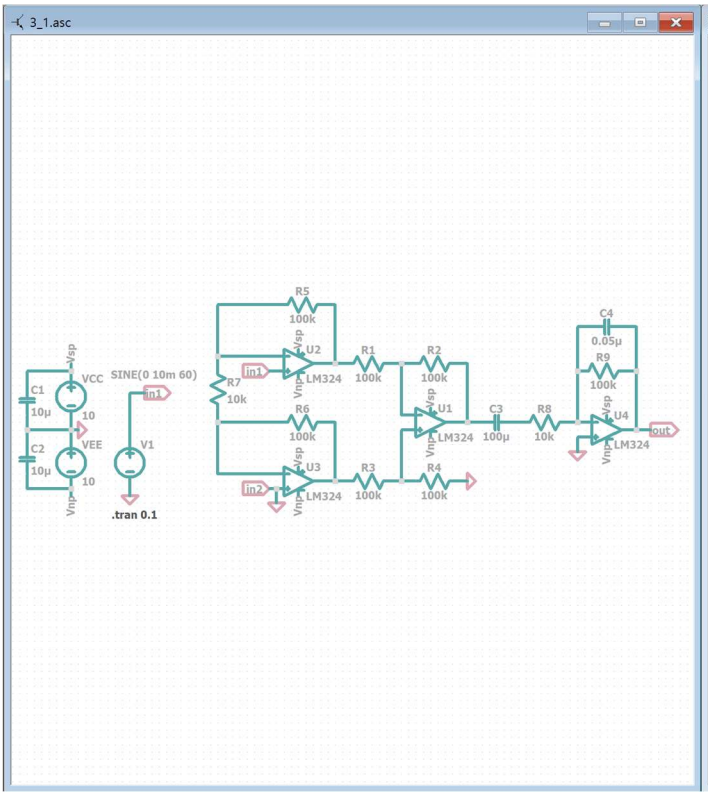
4.

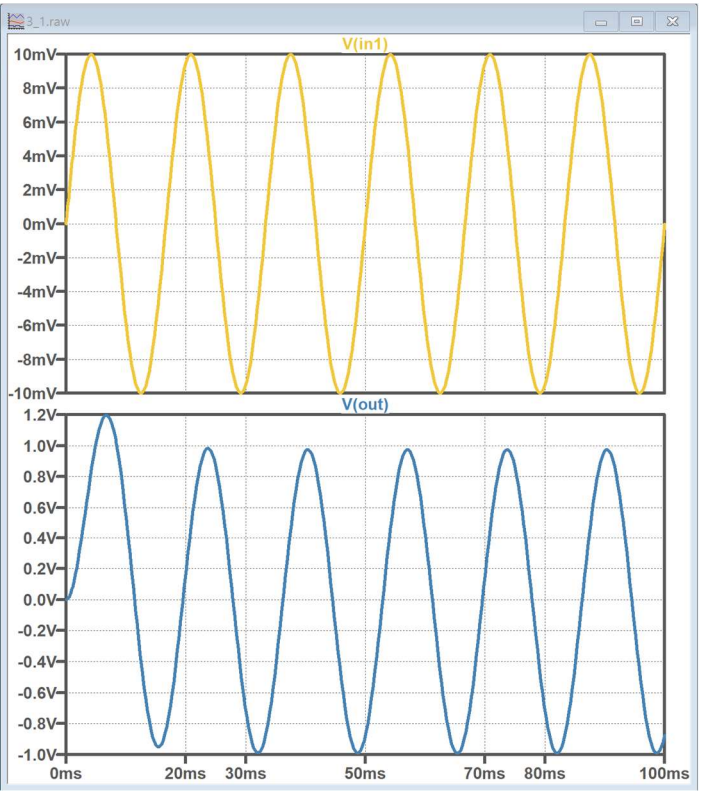
$$CMRR = \left|\frac{A_{DM}}{A_{CM}}\right| = \underline{\mathbf{90.231\ dB}}$$

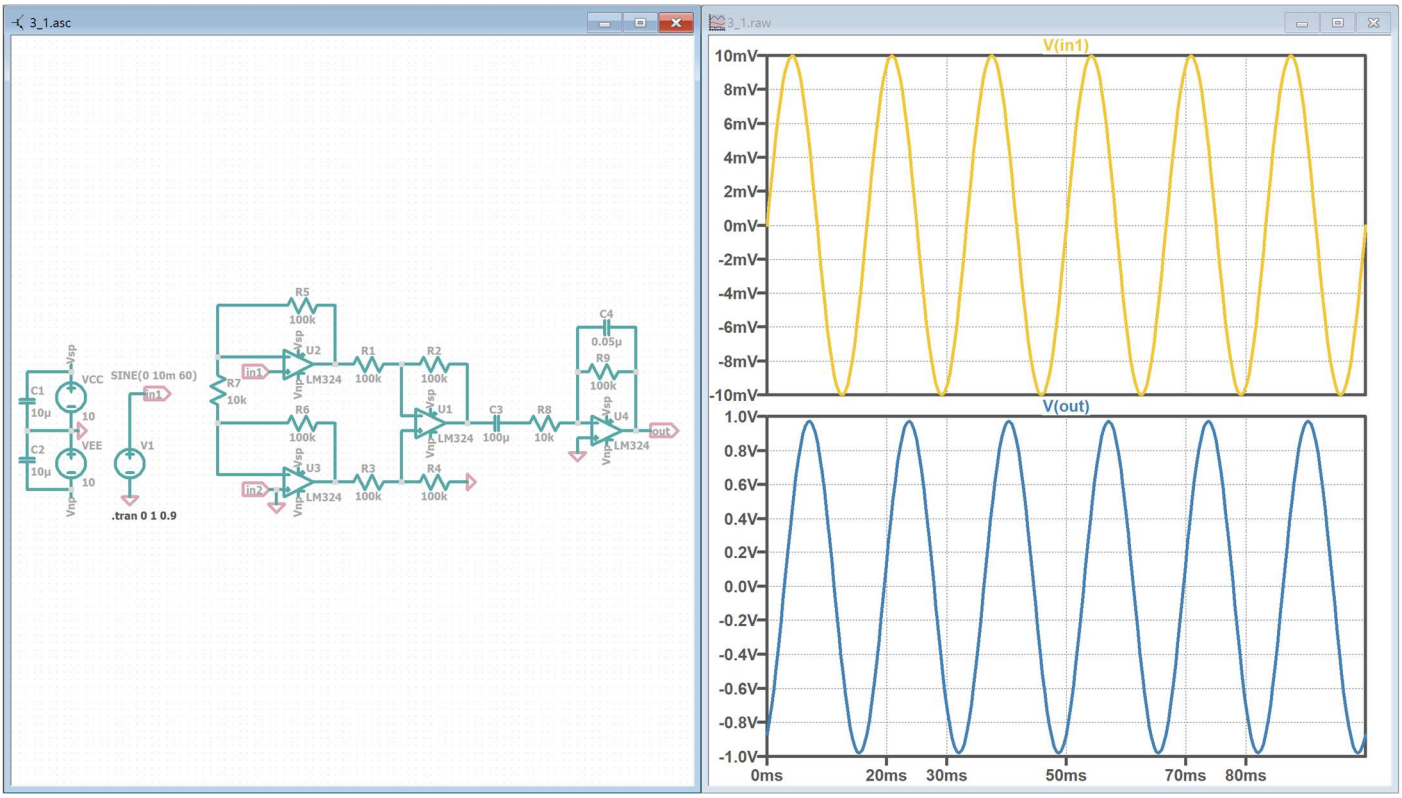
Experiment 3: Instrumentation Amplifier with band-pass filter

Write down your pinout.









2.

$v1_{,pp}$ (V)	$v2_{,pp}$ (V)	$vd_{,pp}$=v2-v1 (V)	$v_{out,pp}$ (V)	A_{DM} (V/V)	Phase (vout->v1) (degree)
19.75m	**0**	**19.75m**	**2.035**	**103**	**58.32**

v_{out} and v1 waveform: