Task 2:

Task3:

Task 5:

Amplifier voltage gain:
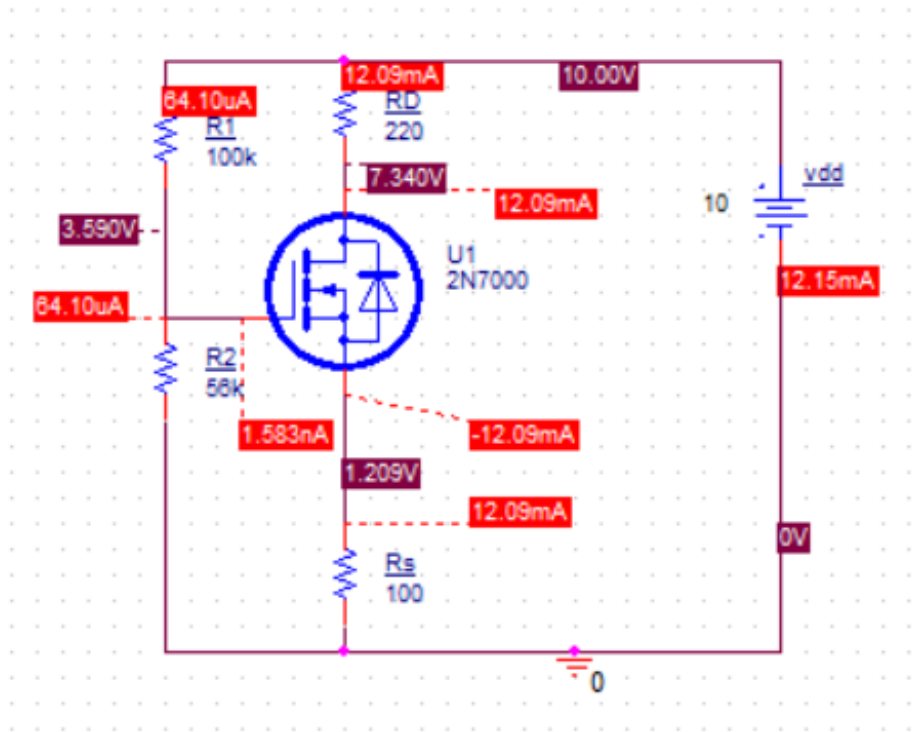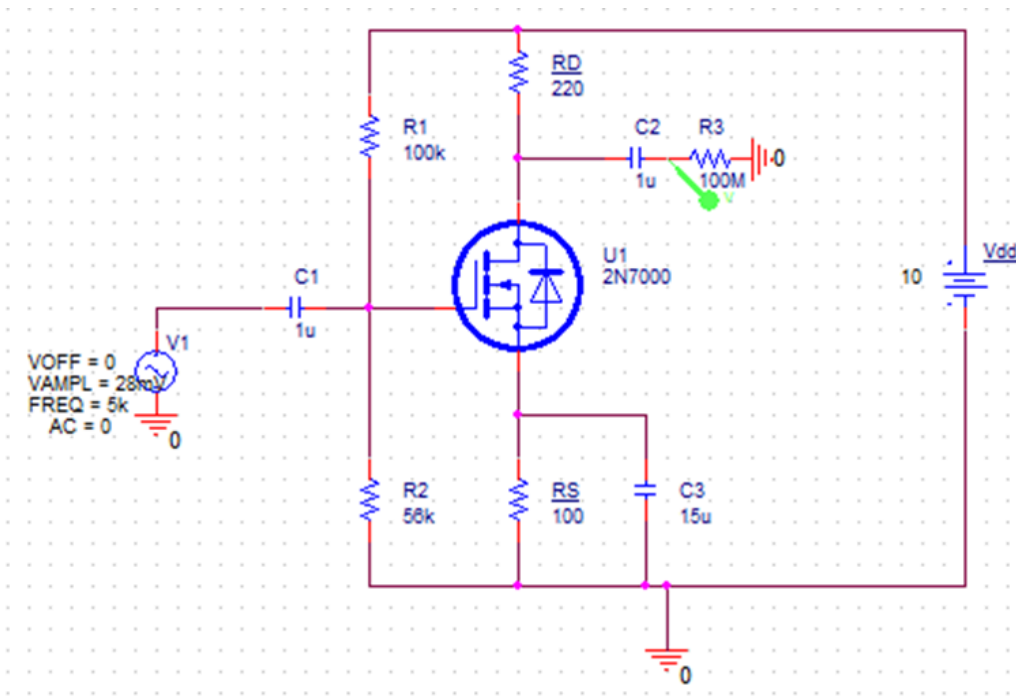
Trace Color	Trace Name	Y1	Y2	Y1 - Y2
	X Values	144.828u	244.828u	-100.000u
CURSOR 1,2	V(C2:2)	189.882m	-179.999m	369.881m
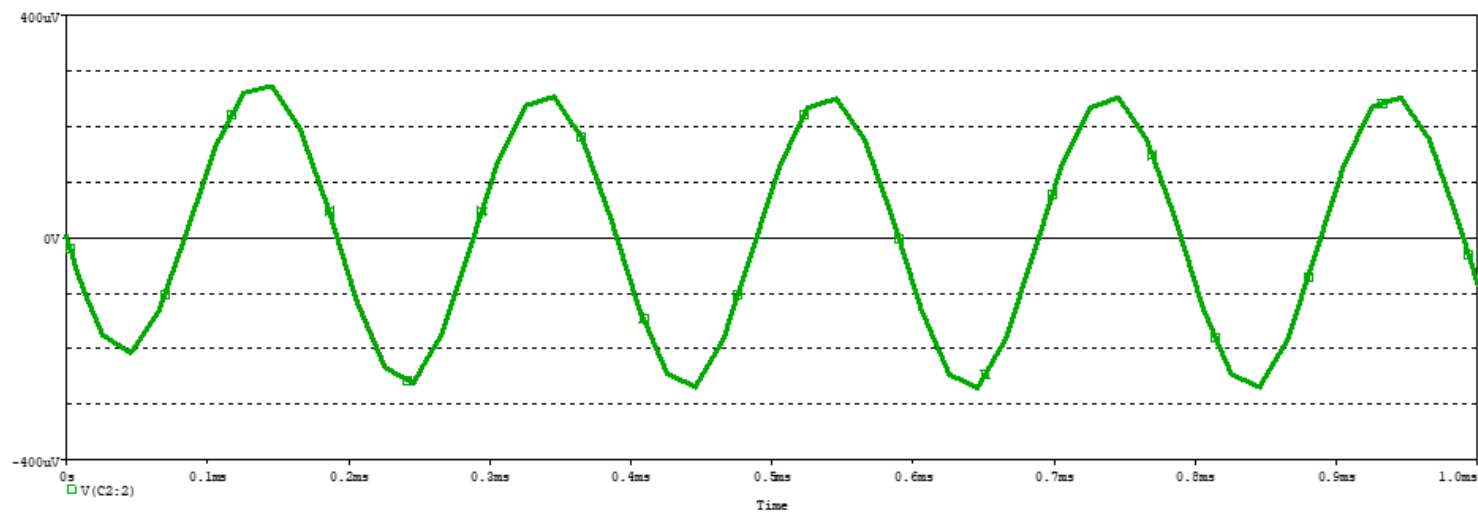
Input:
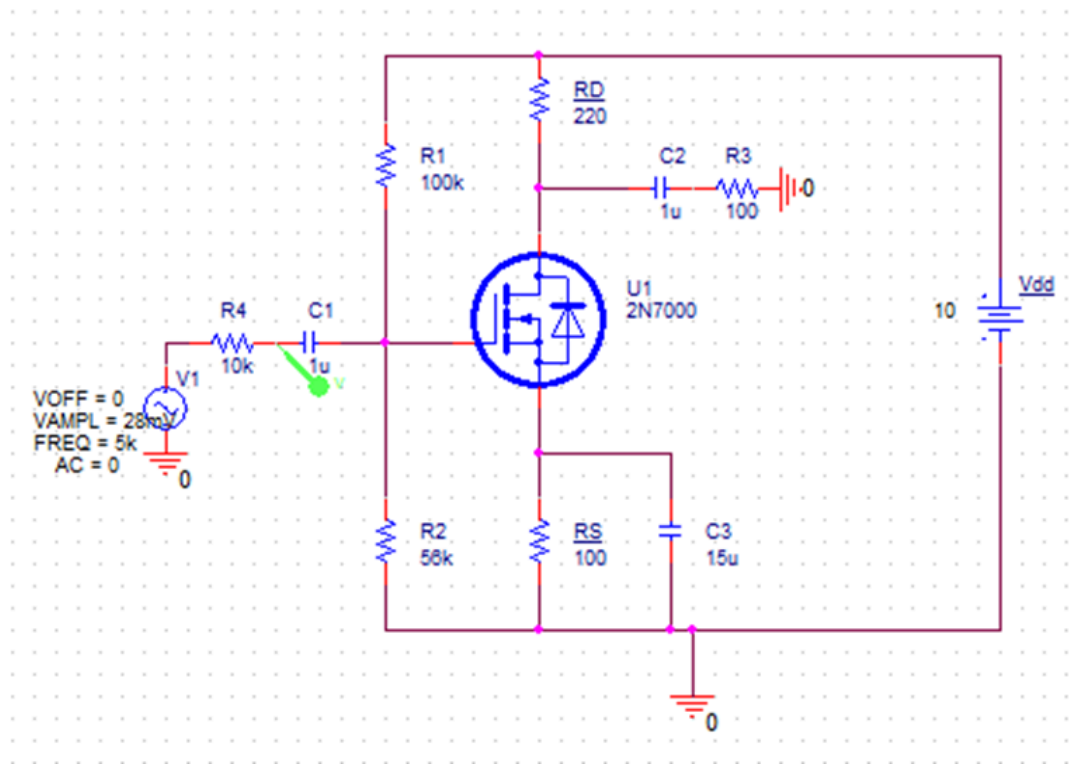
Trace Color	Trace Name	Y1	Y2	Y1 - Y2
	X Values	244.952u	345.890u	-100.938u
CURSOR 1,2	V(C1:1)	21.322m	-21.515m	42.837m
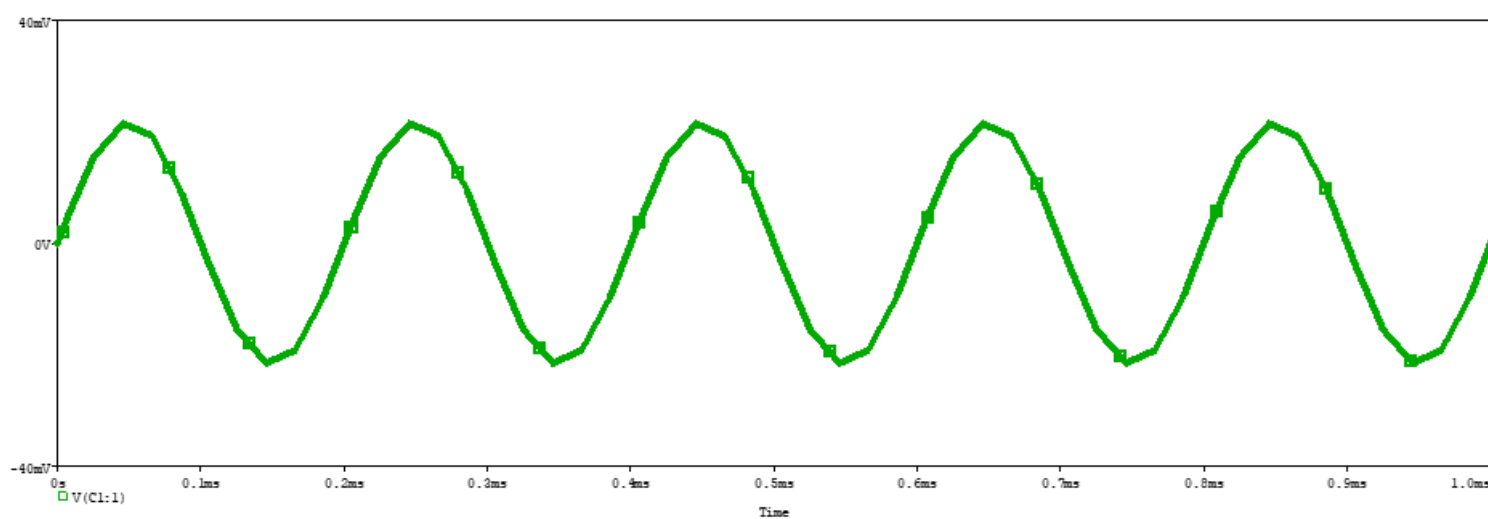
Output:
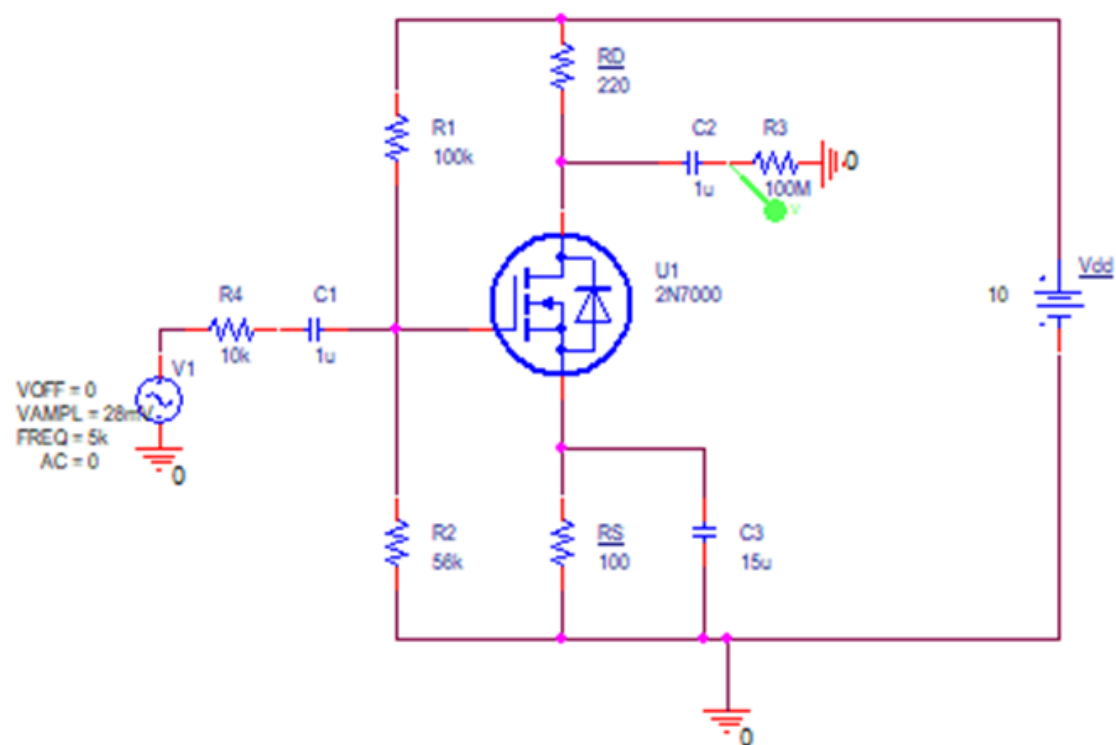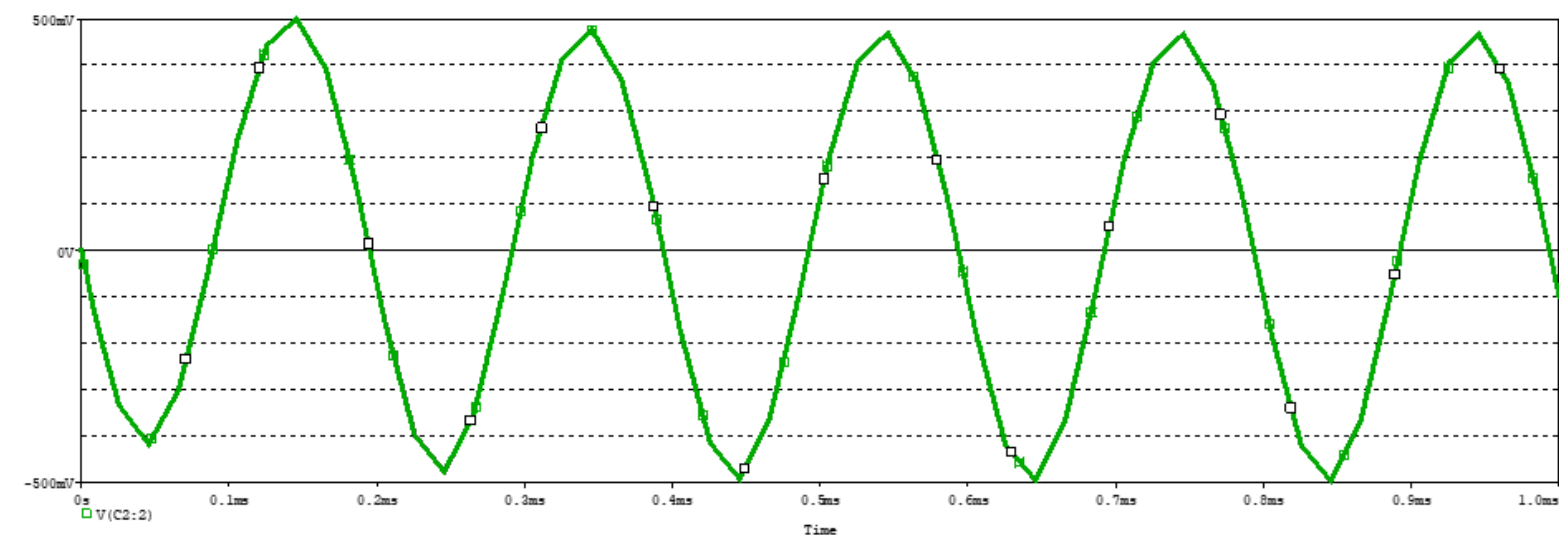
Trace Color	Trace Name	Y1	Y2	Y1 - Y2
	X Values	145.517u	245.406u	-99.889u
CURSOR 1,2	V(C2:2)	499.482m	-477.974m	977.455m