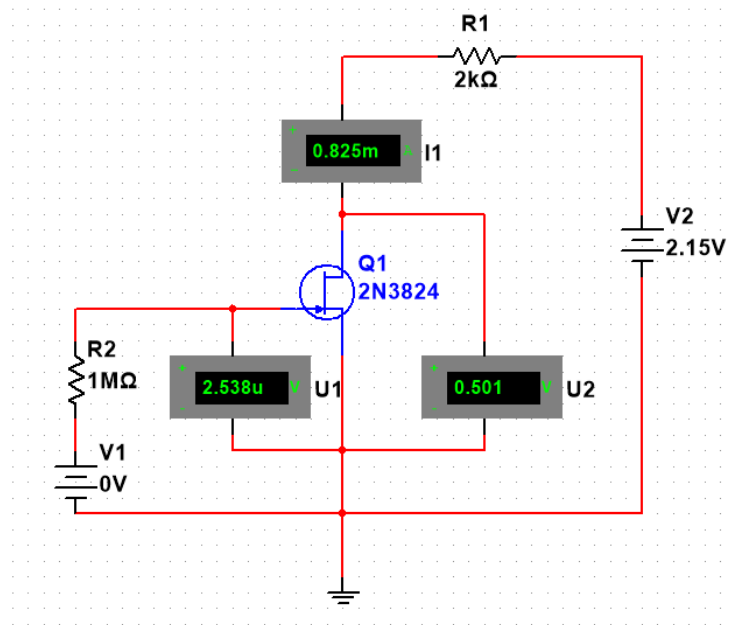


Prelab 9 and 10



Circuit 9.1 JFET Circuit

VDS (V)	Id (mA) @ VGS = 0V	Id (mA) @ VGS = -0.5 V	Id (mA) @ VGS = -1 V
0	0	0	0
0.5	0.823	0.605	0.387
1	1.434	0.998	0.561
1.5	1.829	1.171	0.57
2	2.006	1.183	0.572
2.5	2.02	1.187	0.574
3	2.025	1.19	0.576
3.5	2.031	1.193	0.576
4	2.036	1.196	0.578
5	2.046	1.203	0.581
6	2.058	1.21	0.584
7	2.069	1.216	0.588
8	2.078	1.222	0.591
12	2.123	1.247	0.602
16	2.165	1.272	0.615
20	2.213	1.3	0.629

Table 9.1 Drain Characteristics

VGS (V)	Id (mA) @ VDS = 6V
0	2.058
-0.5	1.22
-1	0.593
-1.5	0.188
-2	0.011

Table 9.1 Transfer Characteristics

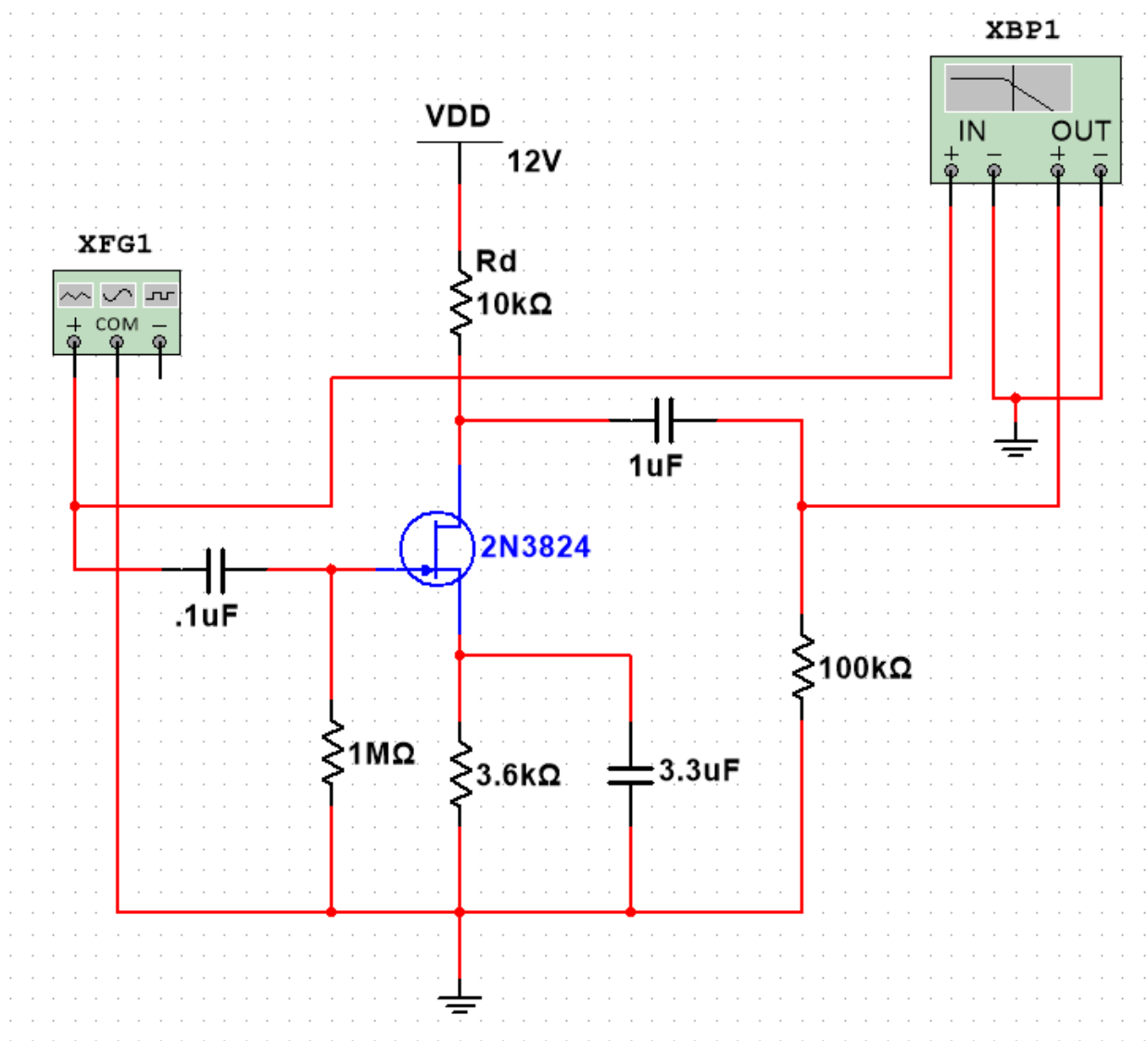


Figure 10.1 Small Signal Amplification

Frequency (Hz)	Vin (mV)	Vout (mV)	Gain
30	40	158.62	11.97
45	40	196.63	13.83
60	40	221.72	14.87
100	40	256.01	16.12
200	40	276.48	16.79
500	40	283.18	17.00
1000	40	284.39	17.04
10000	40	284.71	17.05
100000	40	284.71	17.05
500000	40	284.45	17.04
1000000	40	283.57	17.01
1500000	40	282.17	16.97
2000000	40	280.13	16.91
3000000	40	274.8	16.74
4000000	40	268.02	16.52
5000000	40	259.13	16.23
7000000	40	241.38	15.61
10000000	40	212.43	14.50
11000000	40	202.91	14.10
12000000	40	194.94	13.76
15000000	40	170.02	12.57
16000000	40	163.72	12.24

Table 10.1 Gain as a Function of Frequency