

## Differential amplifier resistors' calculation

from: "<http://masteringelectronicsdesign.com/solving-the-differential-amplifier-part-1/>"

V<sub>in\_min</sub> [V]  
1,2

V<sub>in\_max</sub> [V]  
1,6

x gain  
1,000

V<sub>out\_min</sub> [V]  
0,9

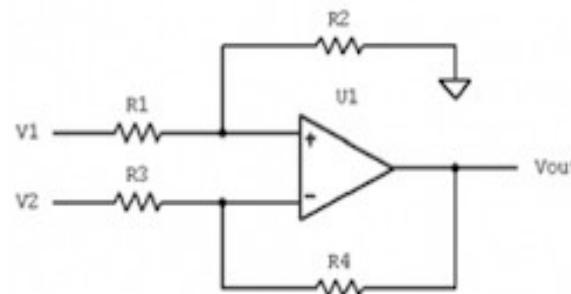
V<sub>out\_max</sub> [V]  
1,3

y R<sub>4</sub>/R<sub>3</sub>  
0,100

z R<sub>1</sub>/R<sub>2</sub>  
0,100

V <sub>1</sub> [V]	V <sub>2</sub> [V]	R <sub>1</sub> [kΩ]	R <sub>2</sub> [kΩ]	R <sub>3</sub> [kΩ]	R <sub>4</sub> [kΩ]
1,2	3,0	100	1000	100	10,0
1,3					
1,4					
1,5					
1,6					

V <sub>out</sub> [V]	non-inv. input [V]
0,900	1,091
1,000	1,182
1,100	1,273
1,200	1,364
1,300	1,455



V<sub>out</sub> vs. V<sub>1</sub>

■ V<sub>out</sub> [V]

