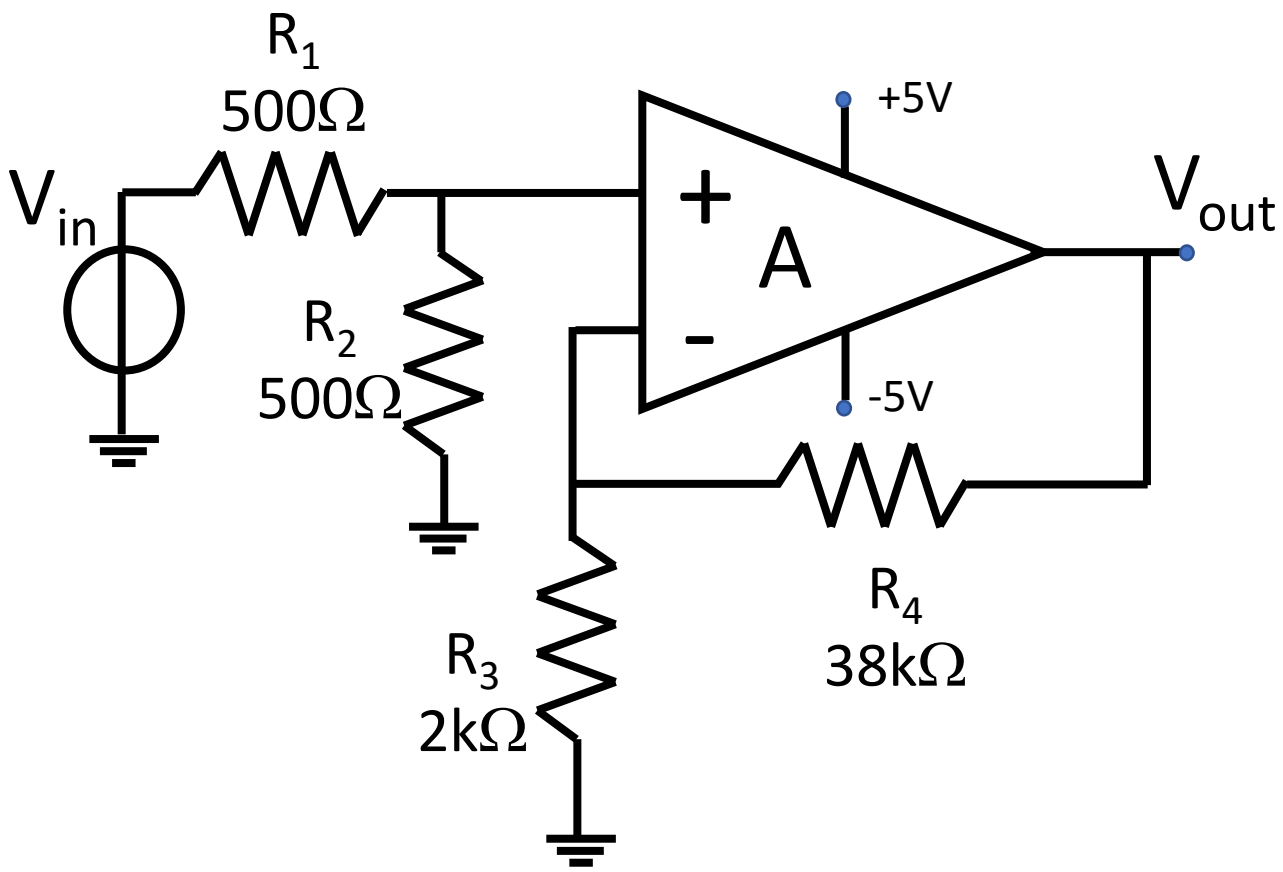
Exercise (1)



a) What is the ideal Gain (A=∞) of the circuit ?

b) What is the maximum amplitude of a sinusoid that can be applied to the input ?

c) What is the actual Gain if A=8000 ?

d) If A is provided by the manufacturer with 40% of possible variations, what would be the distribution of performance of the produced amplifier ?

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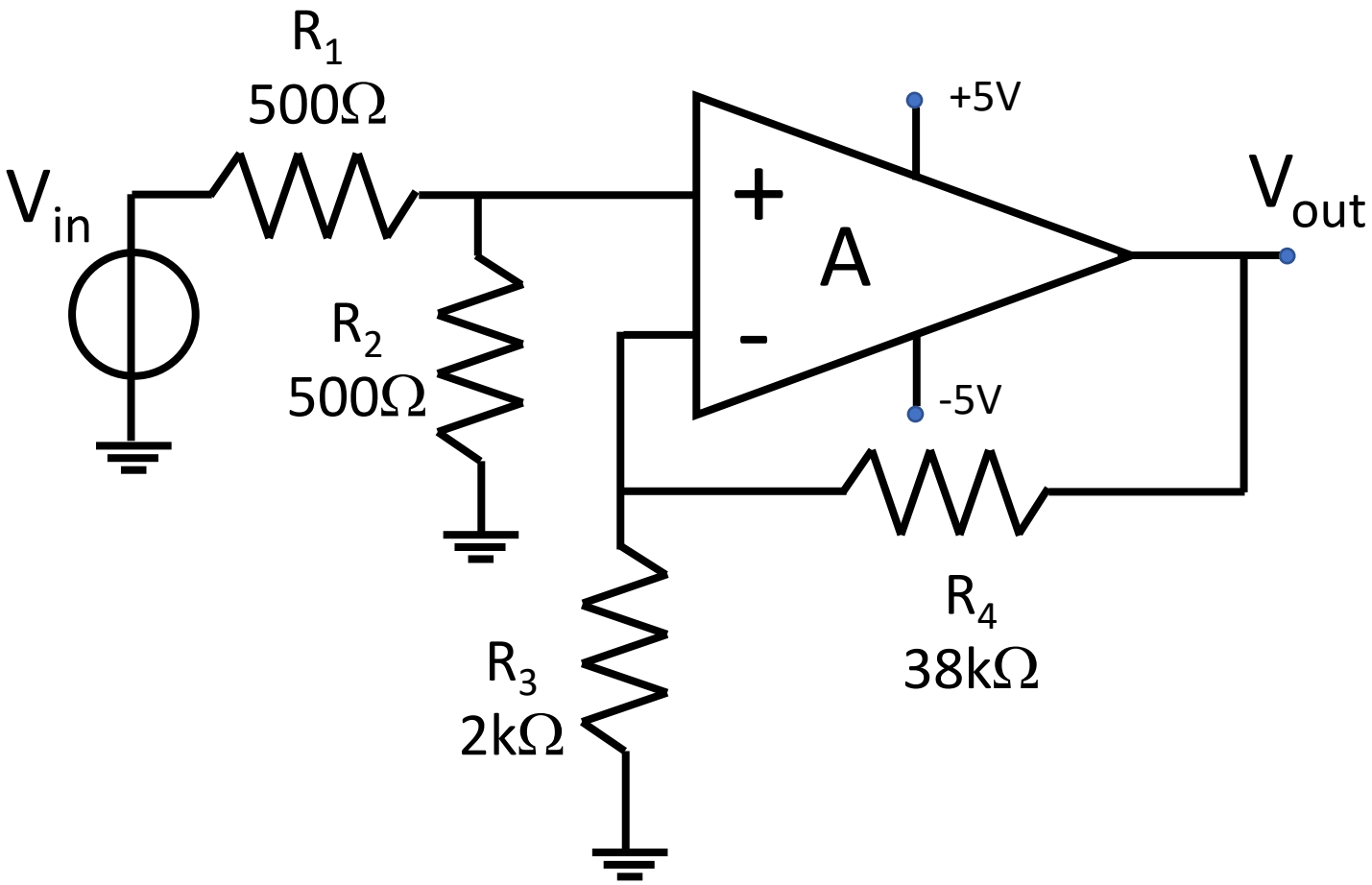
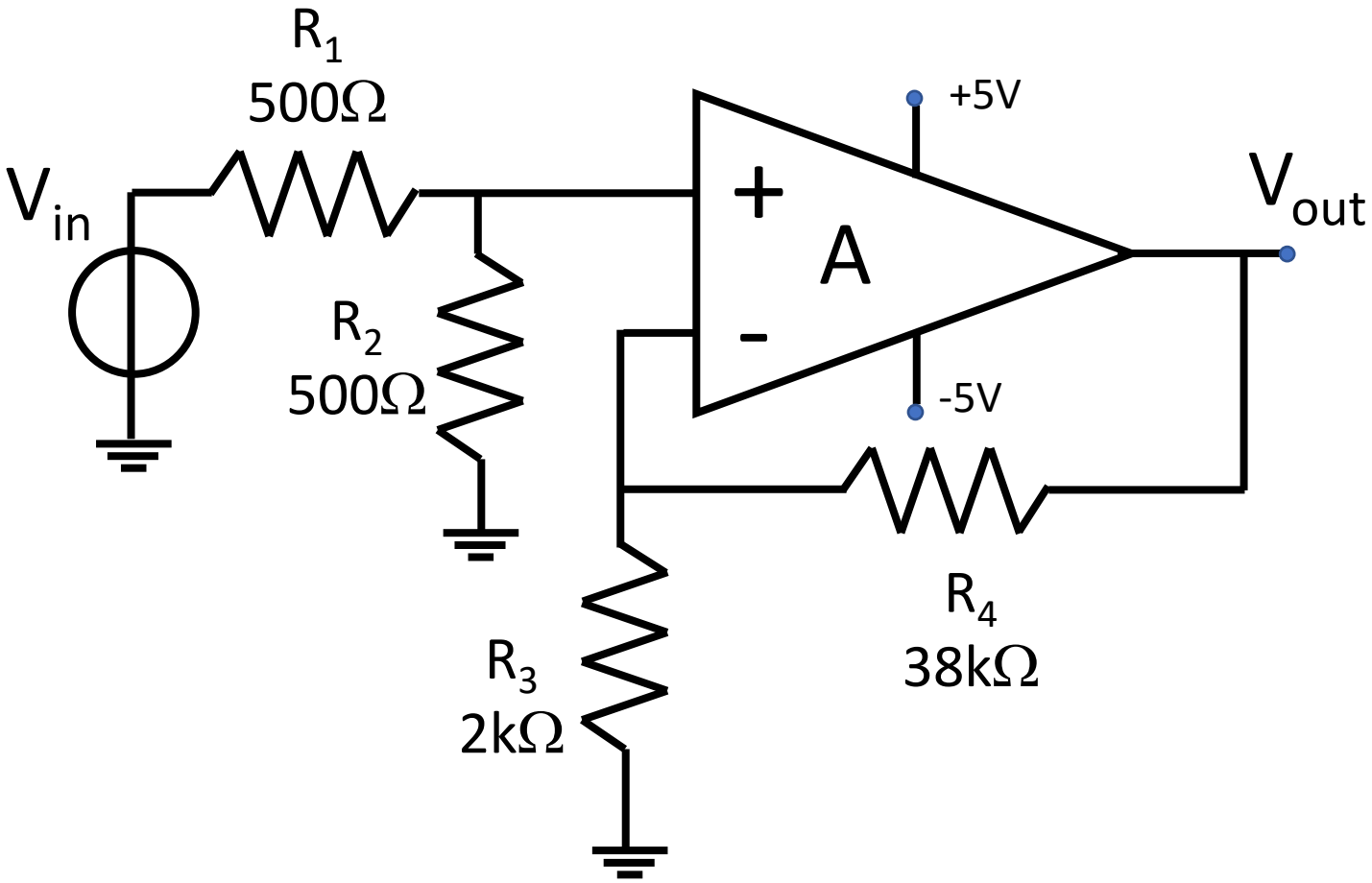


b) What is the maximum amplitude of a sinusoid that can be applied to the input ?



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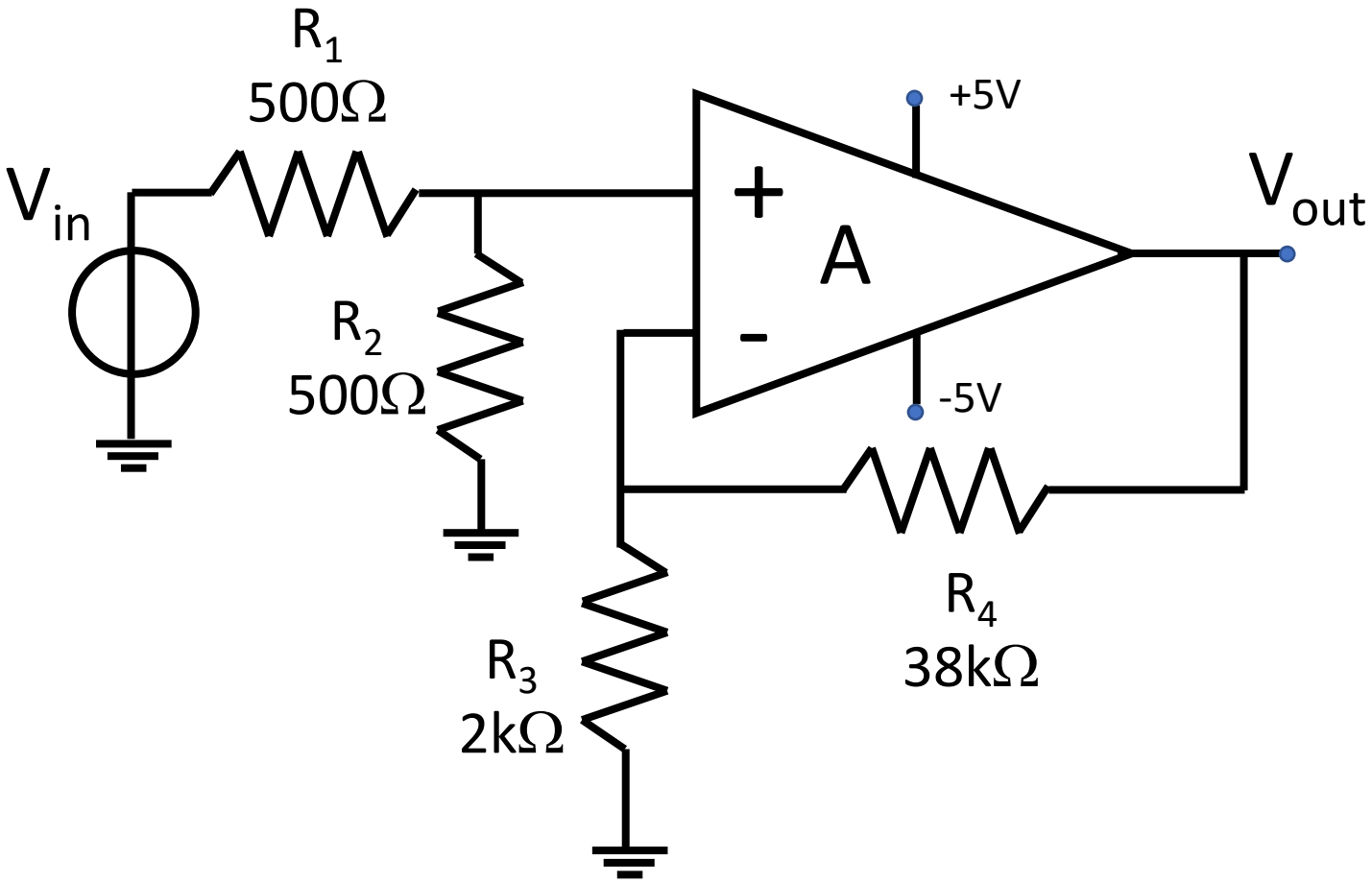

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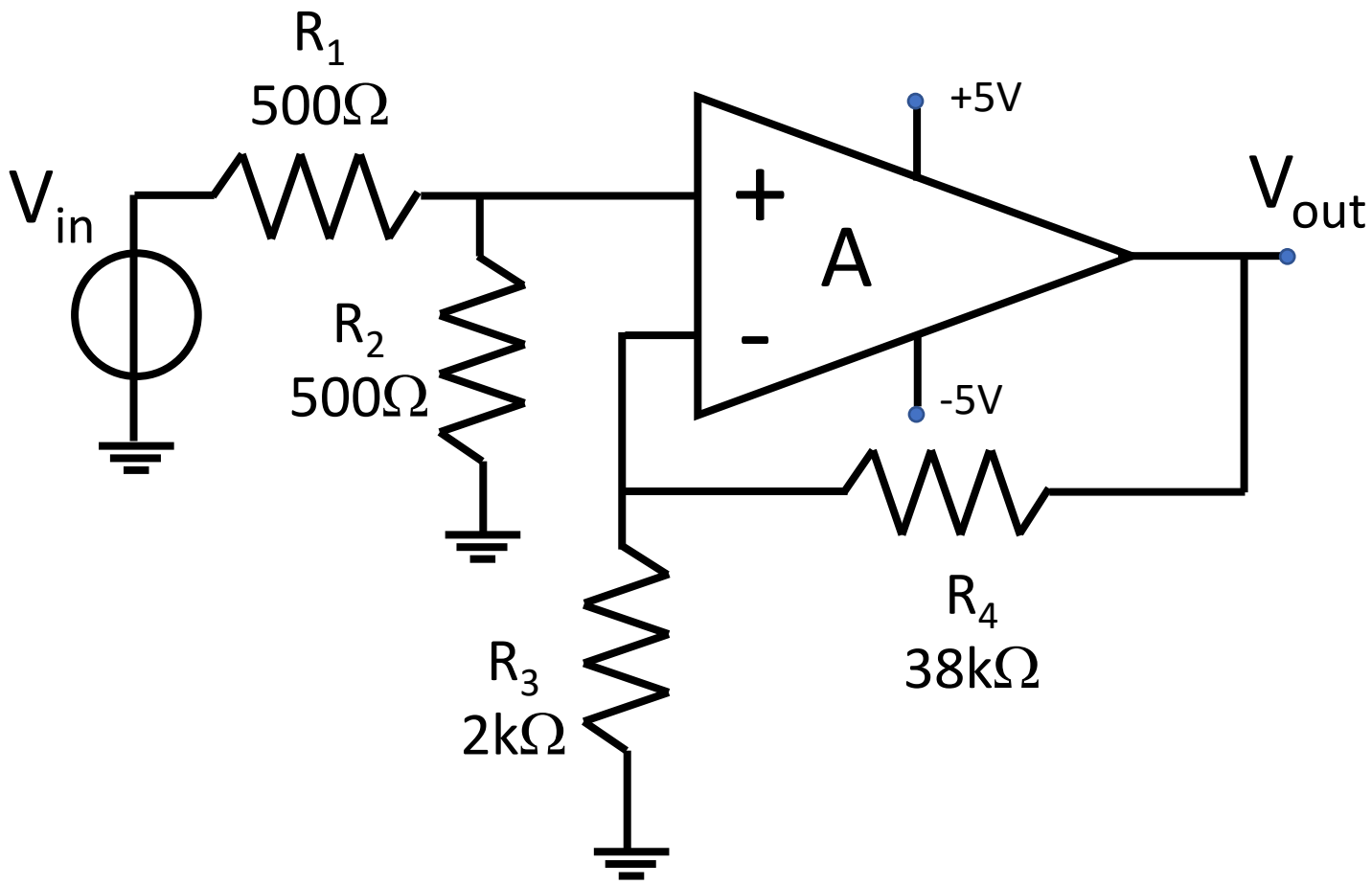
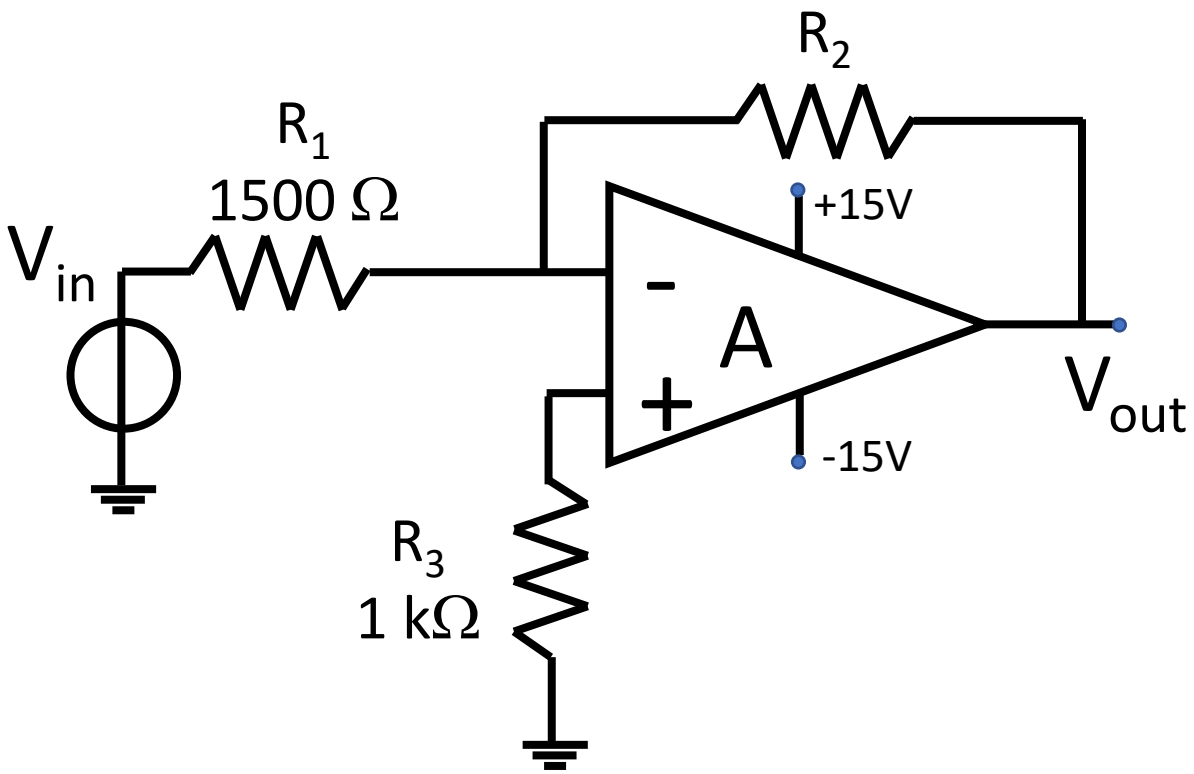


Exercise (2)



a) Find the value of R2 in order to have an ideal Gain (A=∞) equal to G=-6

b) How does R3 play a role in the gain ?

c) Find the loop gain of the circuit when the OpAmp that you have selected has A=750 ?

d) If A varies by 60%, what would be the variation in the gain of the amplifier ?

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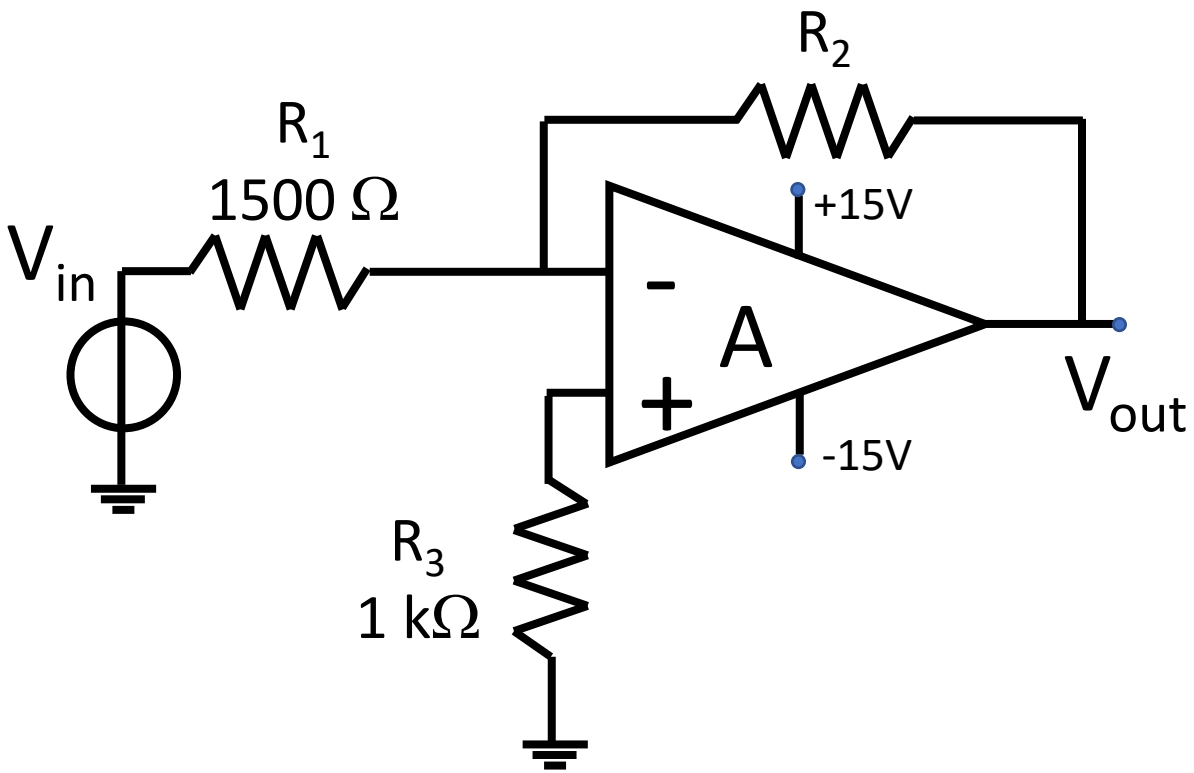
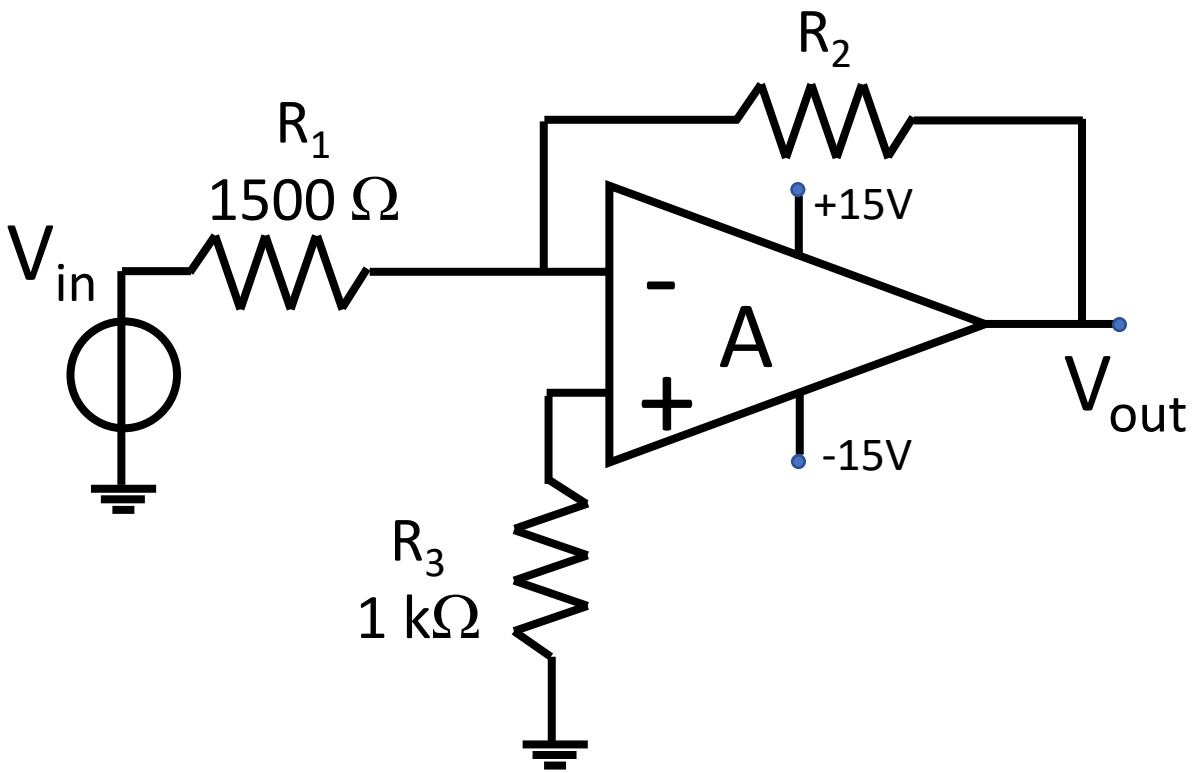


b) How does R3 play a role in the gain ?



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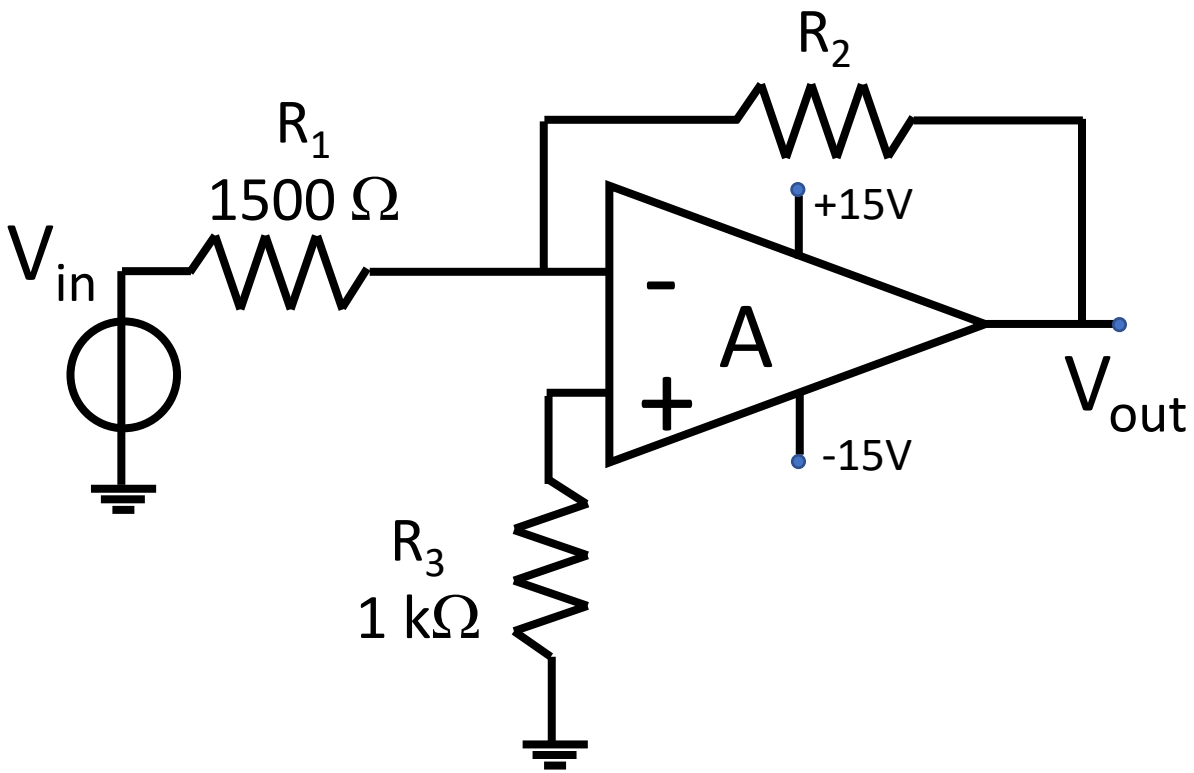

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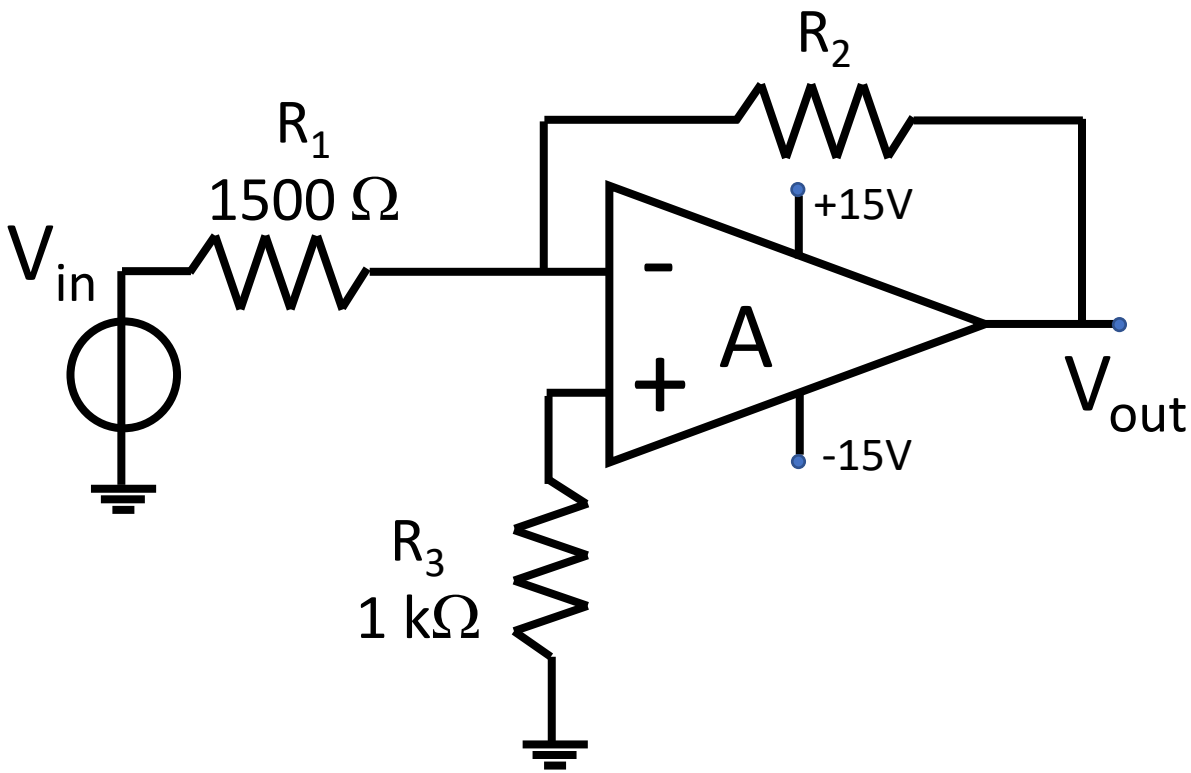
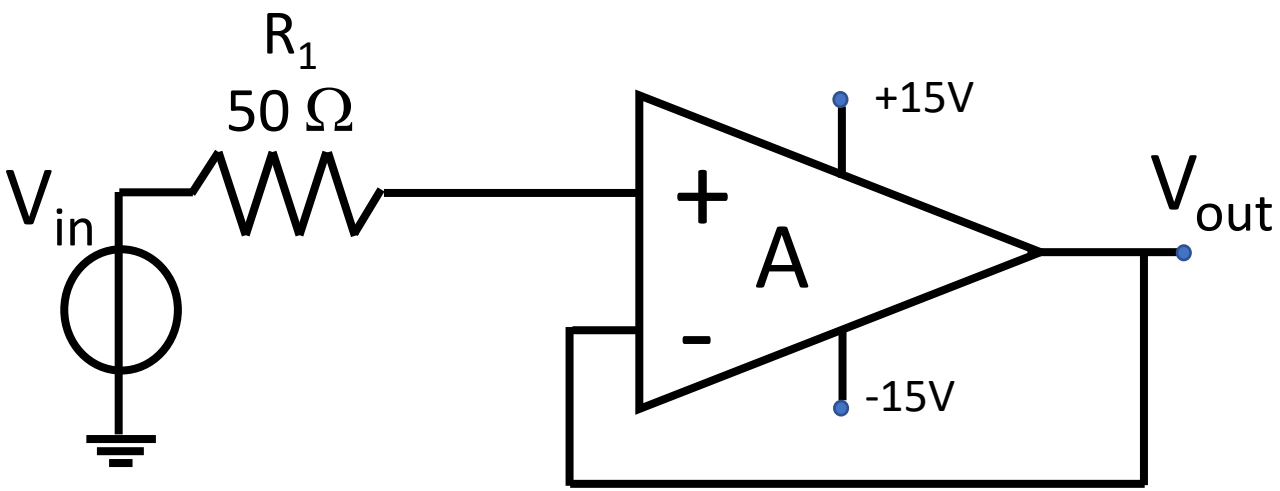


Exercise (3)



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