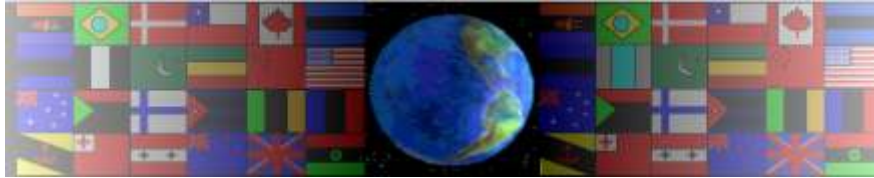


INVERTING AND NON-INVERTING OPERATIONAL AMPLIFIERS

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On behalf of The World Association of Technology Teachers

W.A.T.T.



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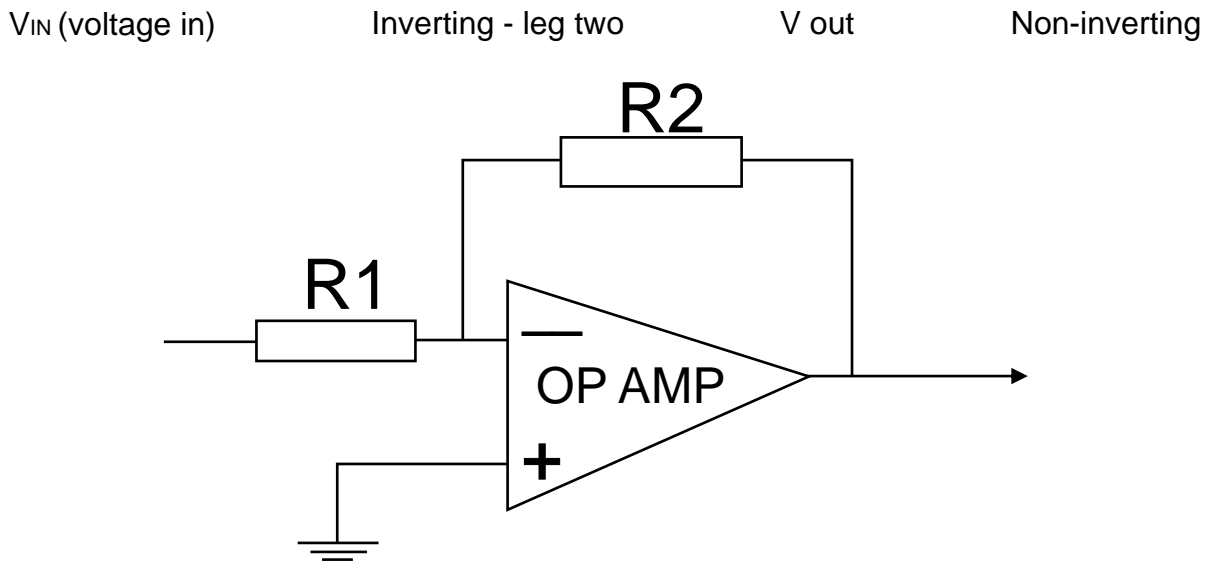
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1. Complete the descriptions of the inverting and non-inverting operational amplifiers.

A. An inverting amplifier - Leg two is the input and the output is always _____.

B. A Non-inverting amplifier - Leg three is the input and the output is _____.

2. The incomplete diagram below shows an INVERTING amplifier. Complete the diagram by adding the following:



3. Which of the resistors controls the amplification?

4. Calculate the GAIN for the following questions:

INVERTING AMPLIFIER

$$\text{GAIN (AV)} = -R2 / R1$$

Example : if R2 is 100 kilo-ohm and R1 is 10 kilo-ohm the gain would be:

NON-INVERTING AMPLIFIER

$$\text{GAIN (AV)} = 1+(R2 / R1)$$

Example : if R2 is 1000 kilo-ohm and R1 is 100 kilo-ohm the gain would be :
