

1 Complete the sentences about capacitors. Choose from these words.

current decreases frequency increases stays the same voltage

The impedance of a capacitor tells you how the _____ in it is determined by the _____ across it for a signal at a particular _____. Its value _____ with increasing frequency. The impedance of a resistor _____ with increasing frequency.

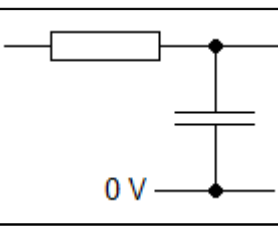
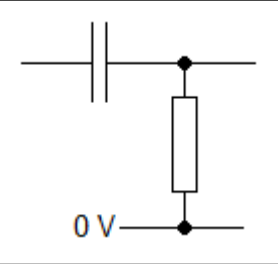
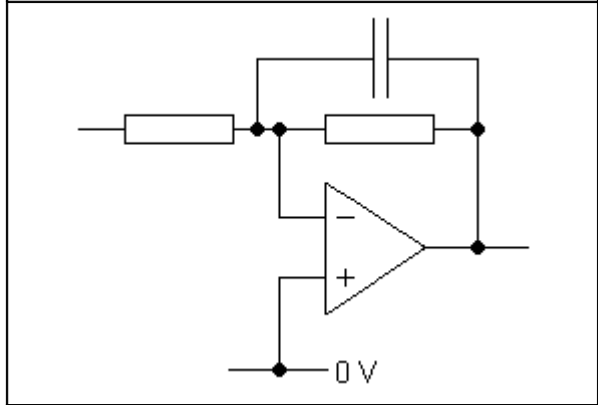
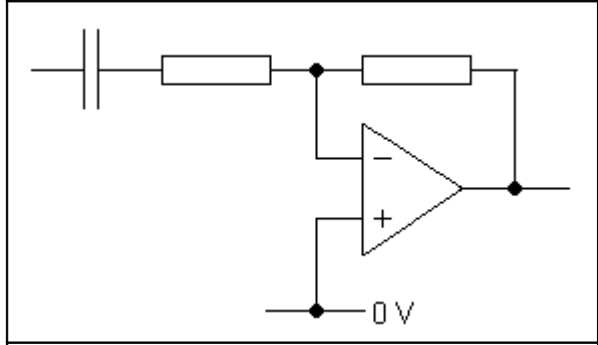
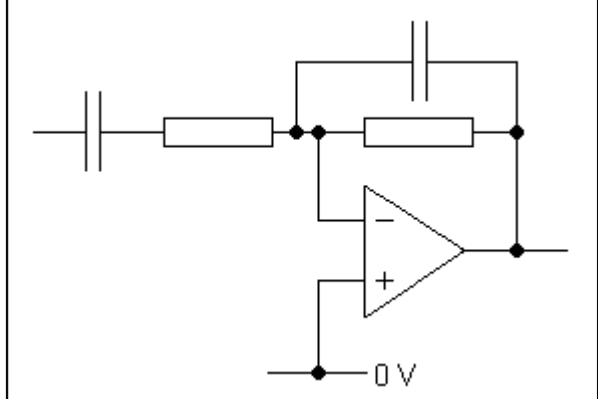
2 Complete the table for the break frequency of a filter.

<i>R</i>	<i>C</i>	<i>f</i> ₀
27 kΩ	33 nF	
470 kΩ		3 kHz
	100 nF	240 Hz

3 Link each **gain-frequency graph** with the name of its **filter**.

gain-frequency graph	filter
	bass cut
	treble cut
	bandpass

4 Link each **circuit** with its **filter** behaviour.

circuit	filter
	bandpass
	active bass cut
	active treble cut
	passive bass cut
	passive treble cut

5 Link each **filter circuit** with its **gain-frequency graph**.

filter circuit	gain-frequency graph

6 Add component values to the three filter circuits above. Choose from these values.

- 330 pF 3.3 nF 33 nF 100 nF**
16 kΩ 20 kΩ 24 kΩ 100 kΩ 240 kΩ 320 kΩ