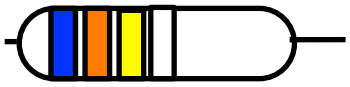
Resistors- You have one of each of the following resistors.

R1 Green, Black, Black 

R2 Brown, Green, Brown 

R3 Red, Black, Brown 

R4 Blue, Orange, Yellow 

R5 Violet, Yellow, Orange 

What is the resistance in each of the 5 resistors?

R1 R2 R3 R4 R5

Given one of each, use the above resistors to answer these questions.

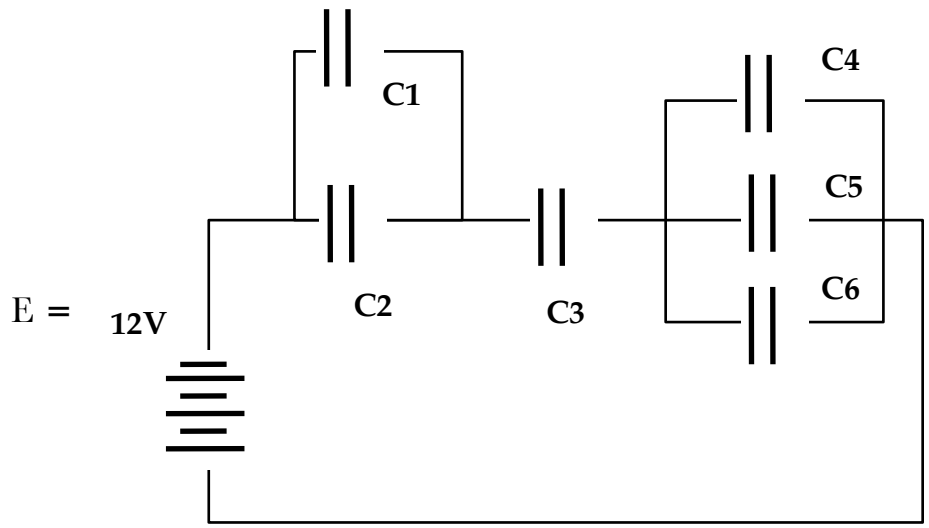
2. What is the total resistance if R3, R4, and R5 are placed in Series

3. What is the total resistance if R1 and R3 are placed in Parallel?

4. How can you use these resistors to get a total resistance of 400?

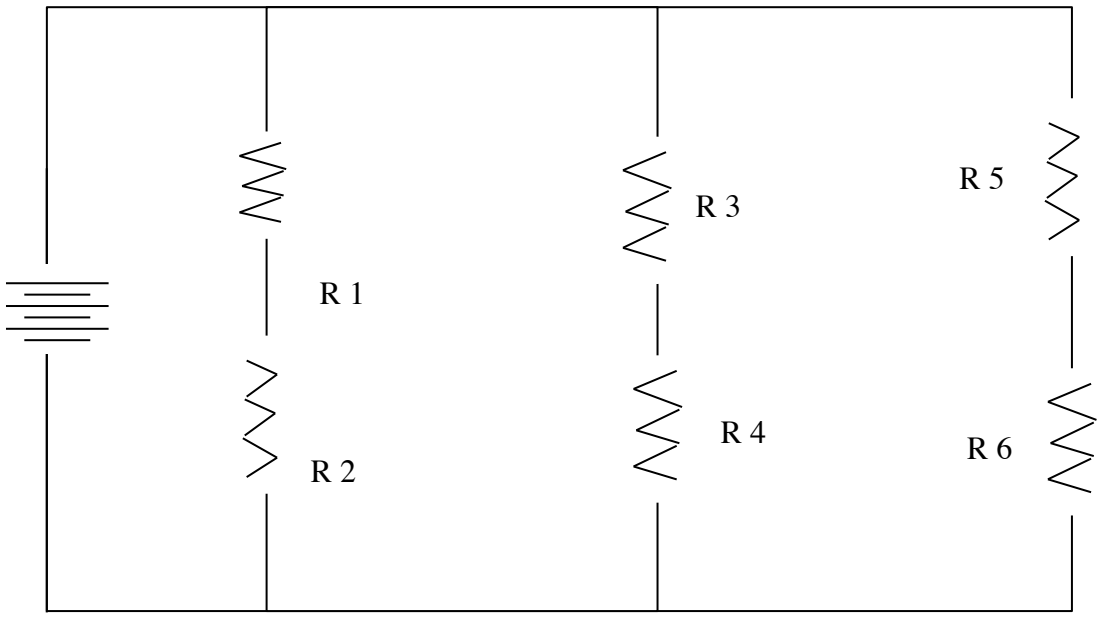
5. How can you get a total resistance of 237.5?

Complete the table below



	Q	V	C μF	W
C1			150	
C2			150	
C3			600	
C4			25	
C5			75	
C6			100	
T		12		

	V	I	R	P
R1			100	
R2			200	
R3			80	
R4			40	
R5			30	
R6			90	
T	120			

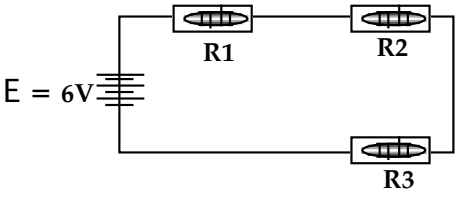


What is the value of a capacitor that holds 6.0 μC across a potential of 8V?

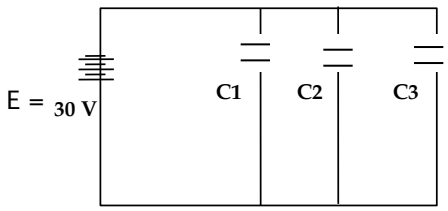
A 5 μF capacitor is connected to a 45 V source. What is the charge on the capacitor, and how much energy does it store?

A 250 Ω resistor is connected to a 6 V battery. What is the current through the resistor?

What value of resistance is necessary to get a current of 1.5 A when it is connected to a 30 V source?



	V	I	R
R1			15
R2			25
R3			80
T	6		



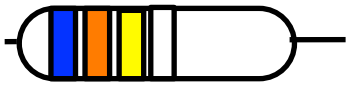
	Q	V	C
R1			15
R2			25
R3			80
T		30	

Resistors- You have one of each of the following resistors.

R1 Green, Black, Black 

R2 Brown, Green, Brown 

R3 Red, Black, Brown 

R4 Blue, Orange, Yellow 

R5 Violet, Yellow, Orange 

What is the resistance in each of the 5 resistors?

R1 **50** R2 **150** R3 **200** R4 **630,000** R5 **74,000**

Given one of each, use the above resistors to answer these questions.

2. What is the total resistance if R3, R4, and R5 are placed in Series

704,200

3. What is the total resistance if R1 and R3 are placed in Parallel?

40

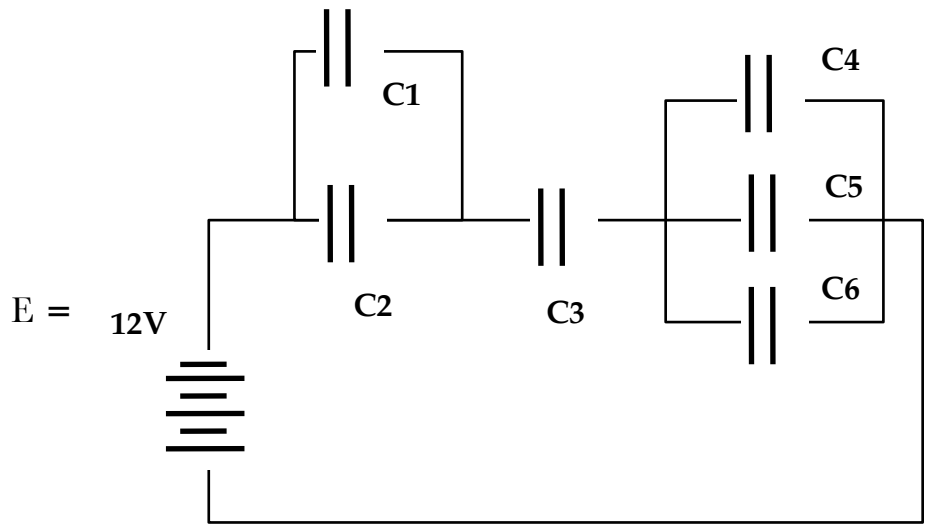
4. How can you use these resistors to get a total resistance of 400?

A series of R1 + R2 + R3

5. How can you get a total resistance of 237.5?

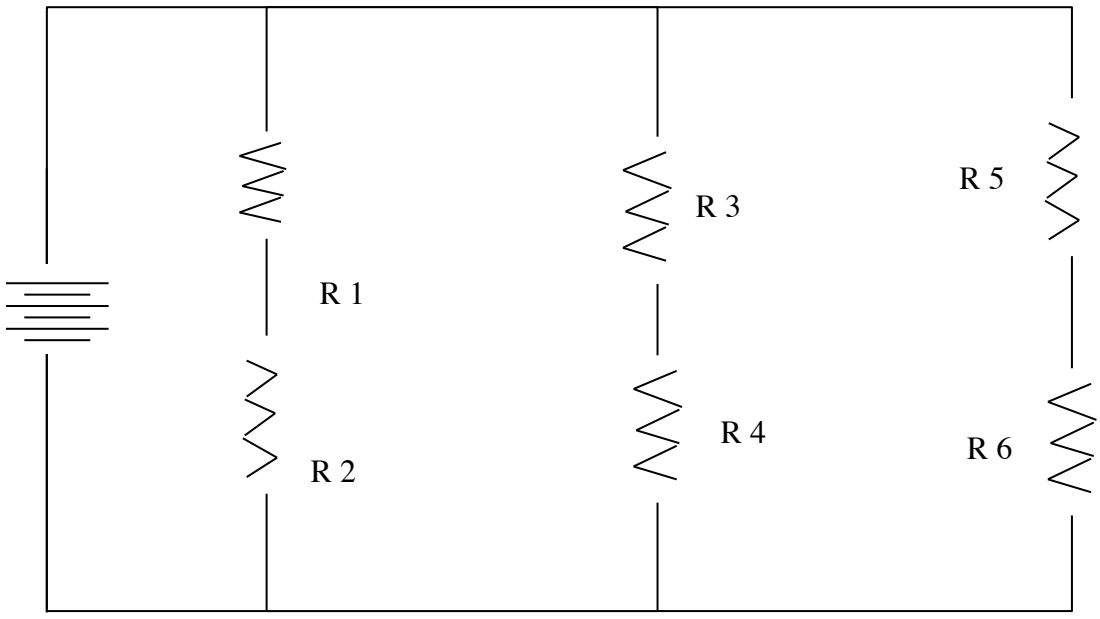
R4 in series with (R1 and R2 in parallel)

Complete the table below



	Q	V	C μF	W
C1	**600**	**4**	150	**1200**
C2	**600**	**4**	150	**1200**
C3	**1200**	**2**	600	**1200**
C4	**150**	**6**	25	**450**
C5	**450**	**6**	75	**1350**
C6	**600**	**6**	100	**1800**
T	**1200**	12	**100**	**7200**

	V	I	R	P
R1	**40**	**0.4**	100	**16**
R2	**80**	**0.4**	200	**32**
R3	**80**	**1**	80	**80**
R4	**40**	**1**	40	**40**
R5	**30**	**1**	30	**30**
R6	**90**	**1**	90	**90**
T	120	**2.4**	**50**	**288**



What is the value of a capacitor that holds 6.0 μC across a potential of 8V?

0.75 μF

A 5 μF capacitor is connected to a 45 V source. What is the charge on the capacitor, and how much energy does it store?

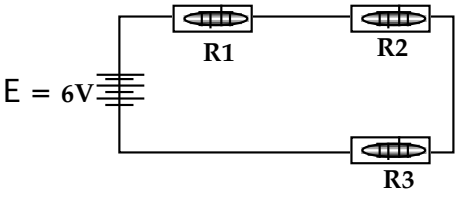
225 μC 562 μJ

A 250 Ω resistor is connected to a 6 V battery. What is the current through the resistor?

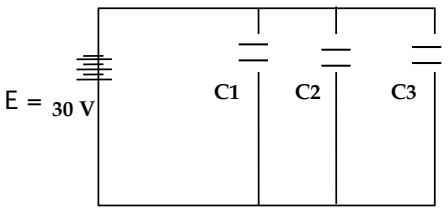
0.024 A

What value of resistance is necessary to get a current of 1.5 A when it is connected to a 30 V source?

20 Ω



	V	I	R
R1	0.75	0.05	15
R2	1.25	0.05	25
R3	4	0.05	80
T	6	0.05	120



	Q	V	C
R1	450	30	15
R2	750	30	25
R3	2400	30	80
T	3600	30	120