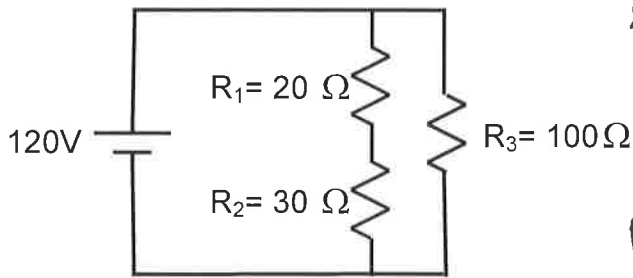
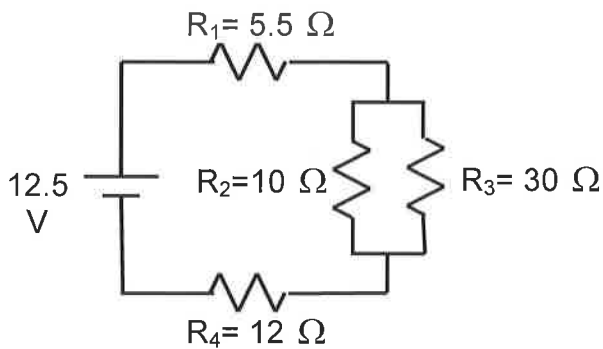


Combination Circuits



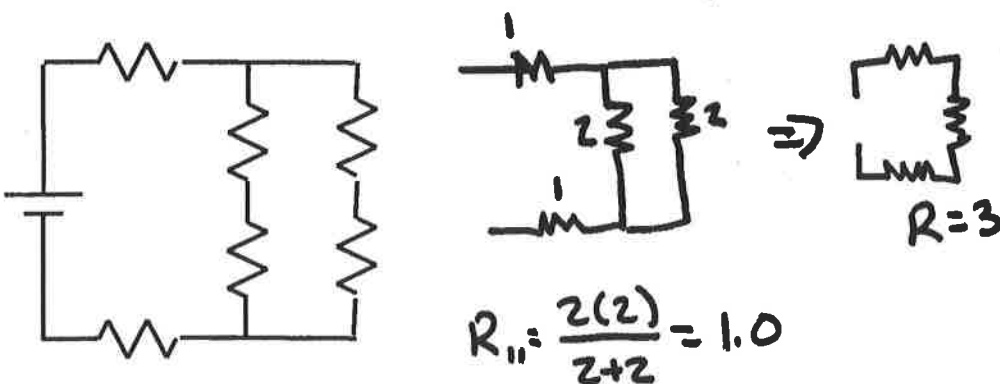
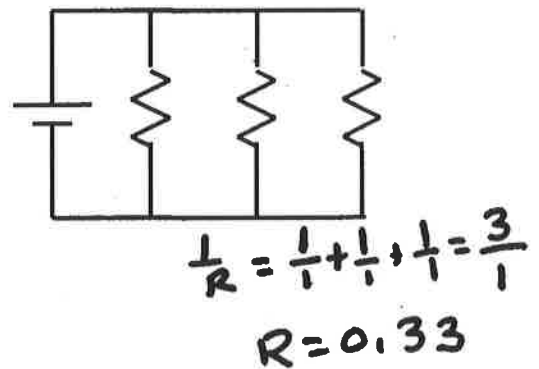
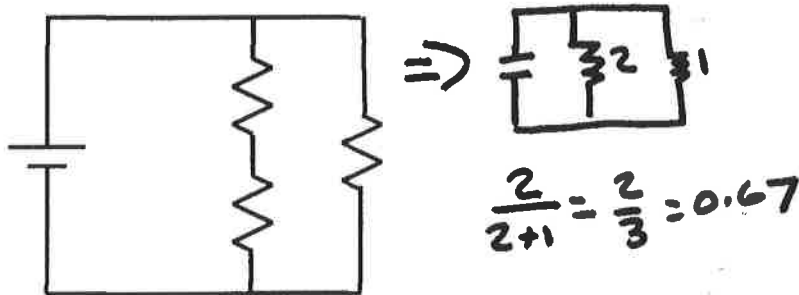
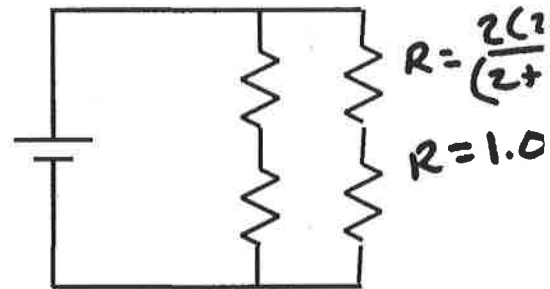
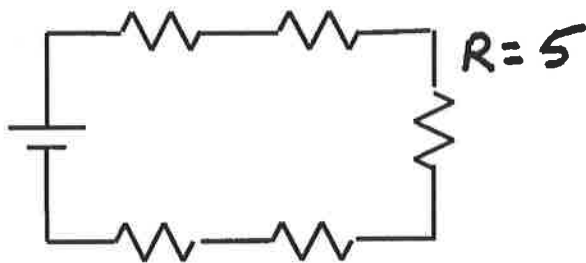
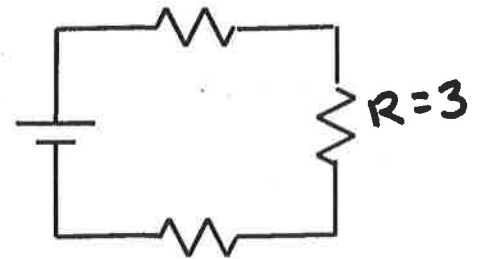
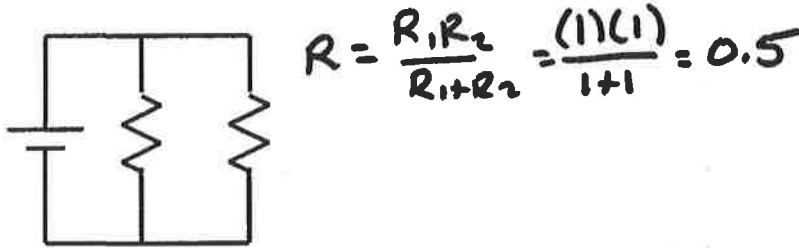
	R	I	V	P
S	R_1	2.4	48	115.2
	R_2	2.4	72	172.8
P	R_{12}	2.4	120	X
	R_3	1.2	120	144
	R	3.6	120	432



	R	I	V	P
S	R_2	.375	3.75	1.4
	R_3	.125	3.75	0.47
	R_{23}	0.5	3.75	X
P	R_4	0.5	6	3
	R_1	0.5	2.75	1.38
	R	0.5	12.5	6.25

Series, Parallel and Combination Circuits

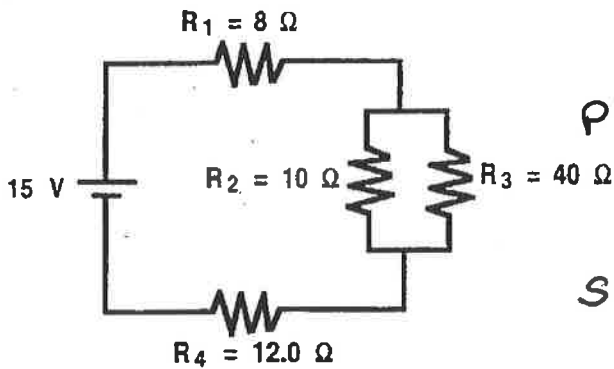
Each resistor has a value of 1.0Ω . Find the equivalent resistance in each circuit.



Combination Circuits Problems

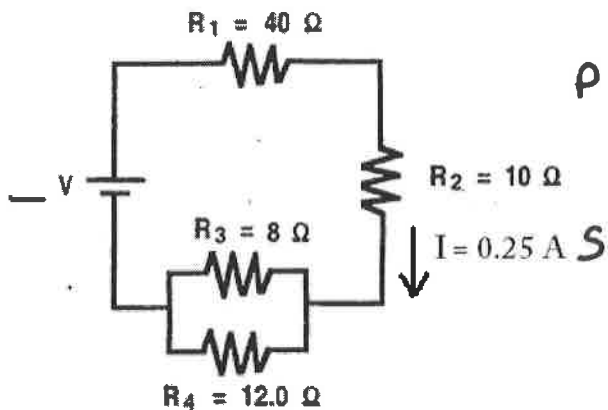
Find R, I, V & P for each resistor using the chart

1)



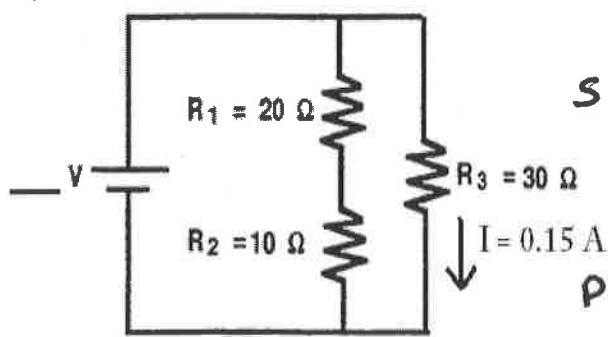
	R	I	V	P
R_2	10	.43	4.29	1.84
R_3	40	.11	4.29	0.47
R_{23}	8	.54	4.29	X
R_1	8	.54	4.32	2.33
R_4	12	.54	6.48	3.50
R	28	.54	15	8.10

2)



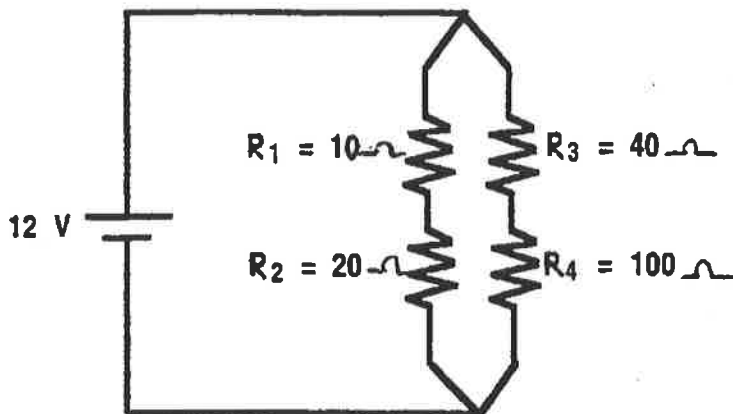
	R	I	V	P
R_3	8	0.15	1.2	0.18
R_4	12	0.10	1.2	0.12
R_{34}	4.8	0.25	1.2	X
R_1	40	0.25	10	2.5
R_2	10	0.25	2.5	0.625
R	54.8	0.25	13.7	3.425

3)



	R	I	V	P
R_1	20	0.15	3.0	0.45
R_2	10	0.15	1.5	0.225
R_{12}	30	0.15	4.5	X
R_3	30	0.15	4.5	0.675
R	15	0.30	4.5	1.35

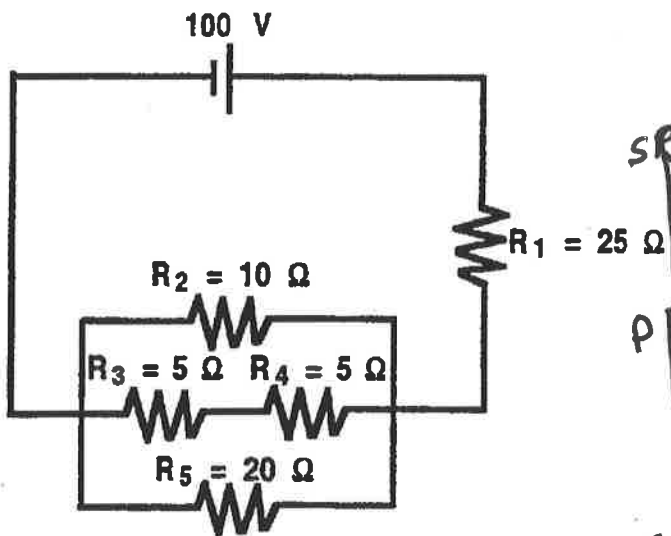
4)



$$R = \frac{R_{34} \cdot R_{12}}{R_{34} + R_{12}} = \frac{140 \cdot 30}{140 + 30} =$$

	R	I	V	P	
S	R ₁	10	.4	4	1.6
	R ₂	20	.4	8	3.2
	R ₁₂	30	.4	12	X
S	R ₃	40	.086	3.4	.29
	R ₄	100	.086	8.6	.74
	R ₃₄	140	.086	12	X
P	R ₁₂	30	.40	12	X
	R	24.7	.486	12	5.83

5)



	R	I	V	P	
SR	R ₃	5	1.379	6.9	9.5
	R ₄	5	1.379	6.9	9.5
	R ₃₄	10	1.379	13.79	*
P	R ₂	10	1.379	13.79	19
	R ₅	20	.69	13.79	9.5
	R ₂₃₄₅	4	3.45	13.79	*
S	R ₁	25	3.45	86.3	298
	R	29	3.45	100	345