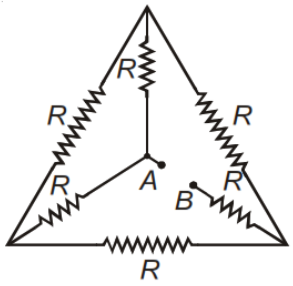
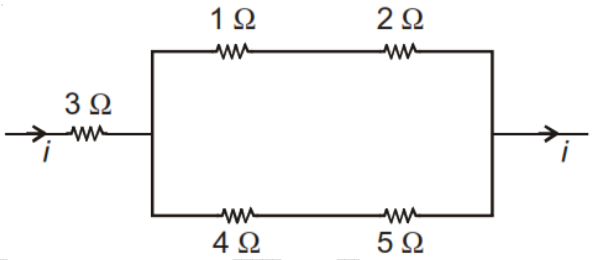
Combination of Resistances

1. The equivalent resistance between A and B in the situation shown is



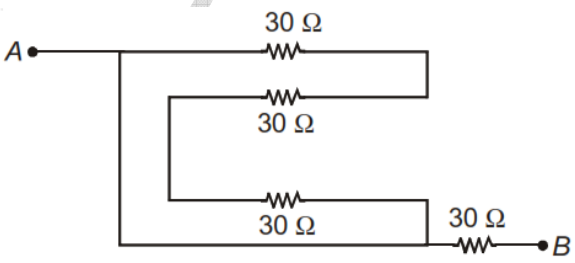
(1) $\frac{6R}{5}$ (2) $\frac{8R}{3}$ (3) R (4) 2R

2. In the situation shown, the currents through 3Ω and 2Ω resistances are in the ratio



(1) 3: 2 (2) 7: 4 (3) 4: 3 (4) 3: 1

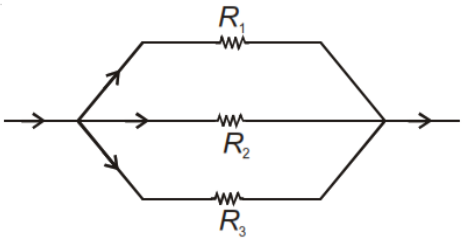
3. The equivalent resistance between A and B in the following figure is



(1) 120Ω (2) 40Ω (3) 30Ω (4) 22.5Ω

4. In the situation shown, resistances R_1, R_2 and R_3 are in the ratio 3: 2: 1 then

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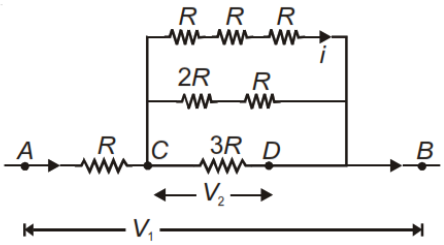
(1) The currents through R_1, R_2 and R_3 are in the ratio 1: 2: 3

(2) The rate of heat production in R_1, R_2 and R_3 are in the ratio 1: 2: 3

(3) The potential differences across R_1, R_2 and R_3 are in the ratio 3: 2: 1

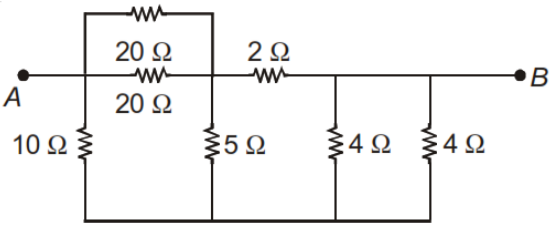
(4) The rate of power consumption in R_1, R_2, are R_3 in the ratio 2: 3: 6

5. In the circuit shown, the potential differences, V_1 (between A and B) and V_2 (between C and D), are



(1) 6 iR, 3iR (2) 3iR, 3iR (3) 3iR, iR (4) 6iR, 6iR

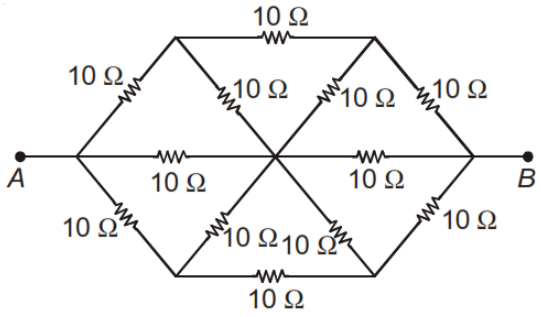
6. The equivalent resistance between A and B in the network shown is figure is



(1) 6Ω (2) 7.8Ω (3) 12Ω (4) 24Ω

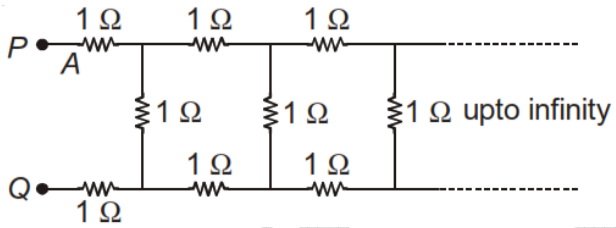
7. The equivalent resistance between A and B in the situation shown is

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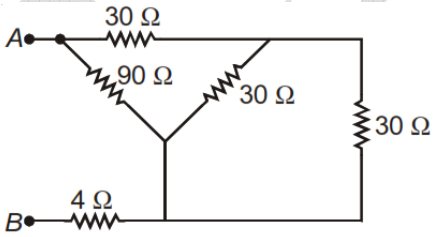
(1) 8Ω (2) 16Ω (3) 28Ω (4) 32Ω

8. The resistance between the terminal point P and Q of the given infinitely long circuit will be (in Ω)



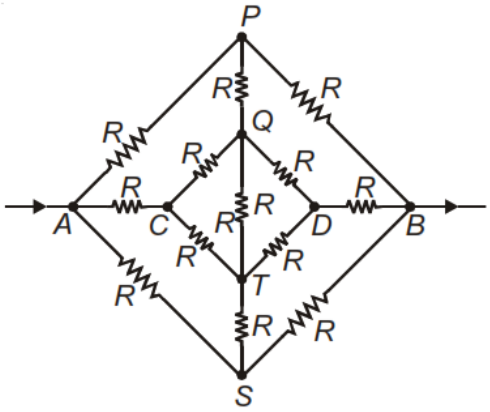
(1) $1+\sqrt{3}$ (2) $1-\sqrt{3}$ (3) $\sqrt{3}-1$ (4) $3+\sqrt{3}$

9. The effective resistance between A and B in the network shown is



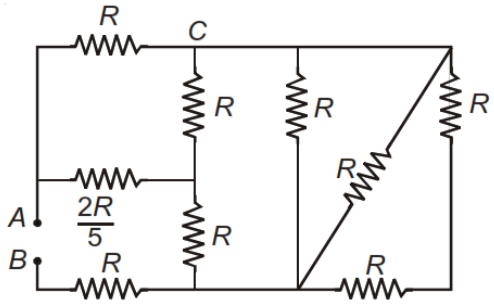
(1) 34Ω (2) 30Ω (3) 17Ω (4) 10Ω

10. The effective resistance between A and B in the network shown is



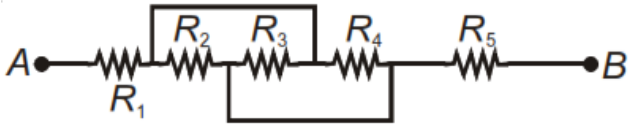
(1) $\frac{6R}{5}$ (2) $\frac{5R}{6}$ (3) $\frac{3R}{4}$ (4) $\frac{4R}{3}$

11. The effective resistance between A and B in the network shown is



(1) $\frac{28R}{17}$ (2) $\frac{118R}{179}$ (3) $\frac{3R}{4}$ (4) $\frac{4R}{3}$

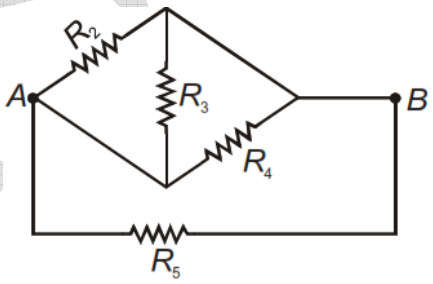
12. Which of the following statements is correct?



(A) R_1 and R_5 can be taken in series (B) R_1, R_3 and R_4 are in parallel

(C) R_4 and R_5 are in parallel (D) None of these

13. Which of the following statements is correct?

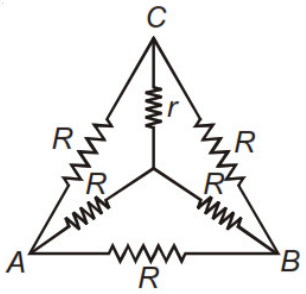


(A) R_1 and R_5 can be taken in series (B) R_1, R_3 and R_4 are in parallel

(C) R_4 and R_5 are in parallel (D) None of these

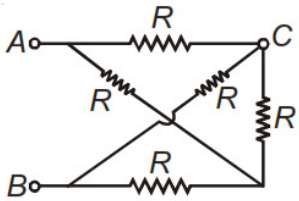
14. The effective resistance between A and B in the network shown is

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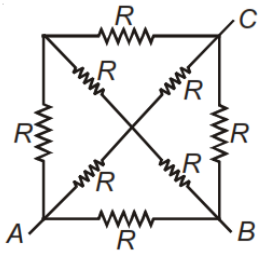
(1) $\frac{6R}{5}$ (2) $\frac{5R}{6}$ (3) $\frac{R}{2}$ (4) $\frac{4R}{3}$

15. The effective resistance between A and B in the network shown is



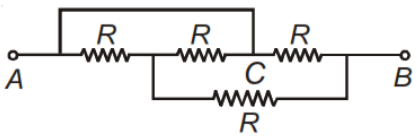
(1) $\frac{6R}{5}$ (2) $\frac{5R}{6}$ (3) $\frac{3R}{4}$ (4) R

16. The effective resistance between A and B in the network shown is



(1) $\frac{6R}{5}$ (2) $\frac{5R}{6}$ (3) $\frac{8R}{15}$ (4) $\frac{15R}{8}$

17. The effective resistance between A and B in the network shown is



(1) $\frac{6R}{5}$ (2) $\frac{5R}{6}$ (3) $\frac{3R}{5}$ (4) $\frac{4R}{3}$

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ANSWERS

1. D	**2.C**	**3.C**	**4.D**	**5.A**	**6.A**	**7.A**
8. A	**9.A**	**10. C**	**11.A**	**12.A**	**13.C**	**14.C**
15. D	**16.C**	**17. C**				

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