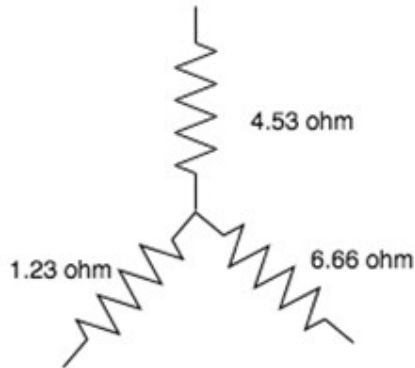


1. Find the equivalent delta circuit.

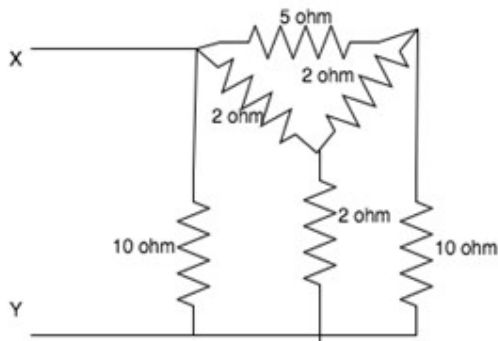


- a) 9.69 ohm, 35.71 ohm, 6.59 ohm
- b) 10.69 ohm, 35.71 ohm, 6.59 ohm
- c) 9.69 ohm, 34.71 ohm, 6.59 ohm
- d) 10.69 ohm, 35.71 ohm, 7.59 ohm

2. Which, among the following is the correct expression for star-delta conversion?

- a) $R_1 = R_a R_b / (R_a + R_b + R_c)$, $R_2 = R_b R_c / (R_a + R_b + R_c)$, $R_3 = R_c R_a / (R_a + R_b + R_c)$
- b) $R_1 = R_a / (R_a + R_b + R_c)$, $R_2 = R_b / (R_a + R_b + R_c)$, $R_c = R_c / (R_a + R_b + R_c)$
- c) $R_1 = R_a + R_b + R_a R_b / R_c$, $R_2 = R_c + R_b + R_c R_b / R_a$, $R_3 = R_a + R_c + R_a R_c / R_b$
- d) $R_1 = R_a R_b / R_c$, $R_2 = R_c R_b / R_a$, $R_3 = R_a R_c / R_b$

3. Find the equivalent resistance between X and Y.



- a) 3.33 ohm
- b) 4.34 ohm
- c) 5.65 ohm
- d) 2.38 ohm

4. Delta connection is also known as _____

- a) Y-connection
- b) Mesh connection
- c) Either Y-connection or mesh connection
- d) Neither Y-connection nor mesh connection

5. R_a is resistance at A, R_b is resistance at B, R_c is resistance at C in star connection. After transforming to delta, what is resistance between B and C?

- a) $R_c + R_b + R_c R_b / R_a$
- b) $R_c + R_b + R_a R_b / R_c$
- c) $R_a + R_b + R_a R_c / R_b$

d) $R_c + R_b + R_c \cdot R_a / R_b$

6. R_a is resistance at A, R_b is resistance at B, R_c is resistance at C in star connection. After transforming to delta, what is resistance between A and C?

- a) $R_a + R_b + R_a \cdot R_b / R_c$
- b) $R_a + R_c + R_a \cdot R_c / R_b$
- c) $R_a + R_b + R_a \cdot R_c / R_a$
- d) $R_a + R_c + R_a \cdot R_b / R_c$

7. R_a is resistance at A, R_b is resistance at B, R_c is resistance at C in star connection. After transforming to delta, what is resistance between A and B?

- a) $R_c + R_b + R_a \cdot R_b / R_c$
- b) $R_a + R_b + R_a \cdot R_c / R_b$
- c) $R_a + R_b + R_a \cdot R_b / R_c$
- d) $R_a + R_c + R_a \cdot R_c / R_b$

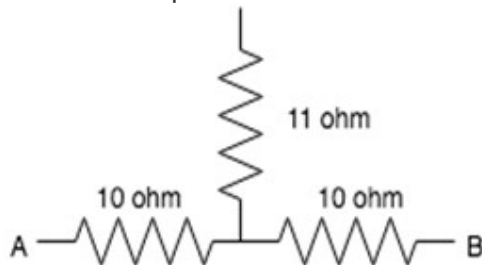
8. If a 1ohm 2ohm and 32/3ohm resistor is connected in star, find the equivalent delta connection.

- a) 34 ohm, 18.67 ohm, 3.19 ohm
- b) 33 ohm, 18.67 ohm, 3.19 ohm
- c) 33 ohm, 19.67 ohm, 3.19 ohm
- d) 34 ohm, 19.67 ohm, 3.19 ohm

9. If an 8/9ohm, 4/3ohm and 2/3ohm resistor is connected in star, find its delta equivalent.

- a) 4ohm, 3ohm, 2ohm
- b) 1ohm, 3ohm, 2ohm
- c) 4ohm, 1ohm, 2ohm
- d) 4ohm, 3ohm, 1ohm

10. Find the equivalent resistance between A and B.



- a) 32ohm
- b) 31ohm
- c) 30ohm
- d) 29ohm