

Unit 7 - Week 5

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Week 5 Assignment 5

The due date for submitting this assignment has passed. **Due on 2019-09-04, 23:59 IST.**
As per our records you have not submitted this assignment.

1) A mesh is a closed path which contains ____ number of loops within it. 1 point

- a. As many
- b. At least 2
- c. Only 2
- d. zero

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: d.

2) The maximum voltage (in Volts) that can be applied across the series combination of a 150 Ω, 4-W resistor and a 100 Ω, 1-W resistor that cannot exceed the power rating of either resistor? 1 point

- a. 72
- b. 25
- c. 50
- d. 100

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: d.

3) In the voltage-divider circuit shown in Fig. 1; the no-load value of v_o is 4 V. When the load resistance R_L is attached across the terminals a and b, v_o drops to 3 V. Find R_L . 1 point

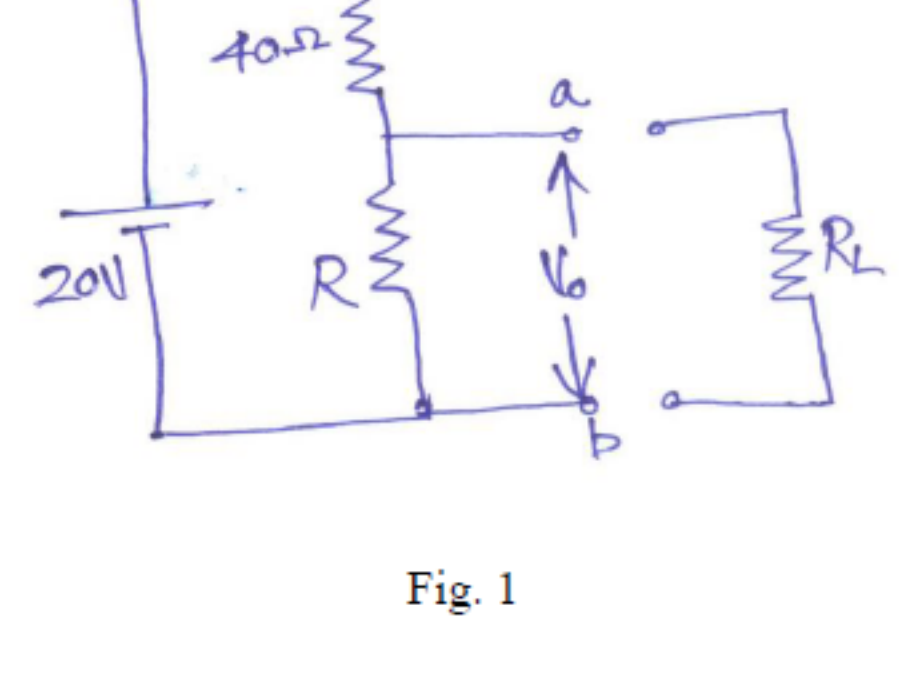


Fig. 1

- a. 48 Ω
- b. 72 Ω
- c. 24 Ω
- d. 12 Ω

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: c.

4) The Thevenin's voltage across the terminals A and B; for circuit shown in Fig. 2. 1 point

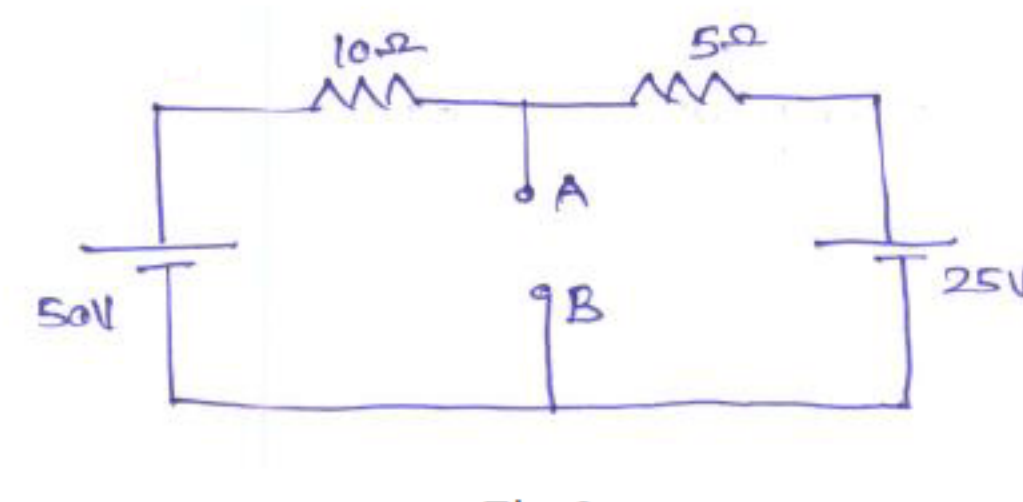


Fig. 2

- a. 33.1 - 33.5 V
- b. 66.2 - 66.6 V
- c. 99.3 - 99.7 V
- d. 75.2 - 75.6 V

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: a.

5) For the circuit shown in Fig. 3. The voltage across 2Ω resistor due to the 10V voltage source alone by Superposition principle. 1 point

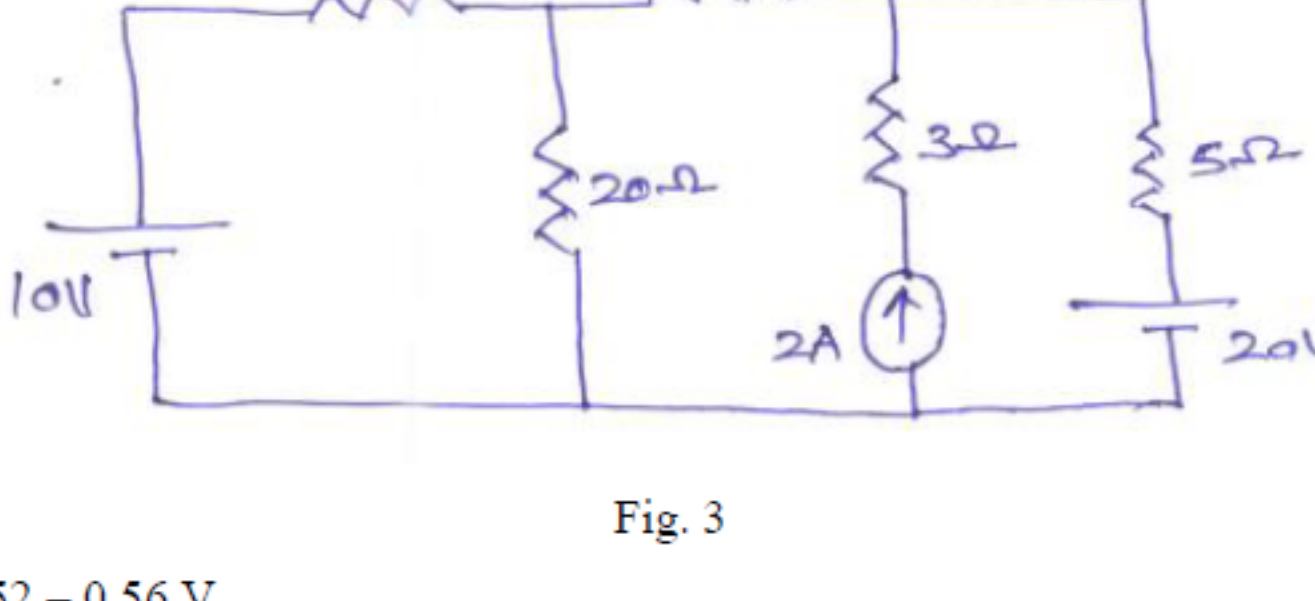


Fig. 3

- a. 0.52 - 0.56 V
- b. 0.95 - 0.99 V
- c. 1.52 - 1.56 V
- d. 2.0 - 2.5 V

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: b.

6) For the circuit shown in Fig. 4. The voltage across 2Ω resistor due to the 2A current source alone by Superposition principle. 1 point

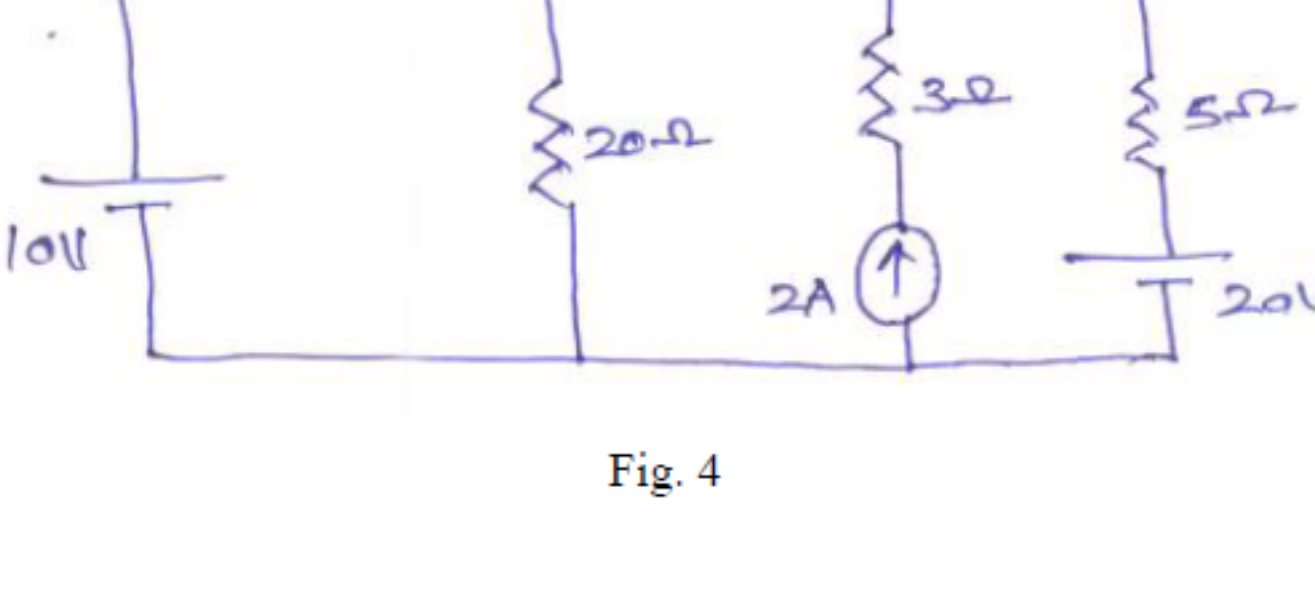


Fig. 4

- a. 1.44 - 1.48 V
- b. 2.40 - 2.44 V
- c. 3.24 - 3.28 V
- d. 2.80 - 2.84 V

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: a.

7) The Thevenin's resistance (in Ω's) across the terminals a and b; for circuit shown in Fig. 5 1 point

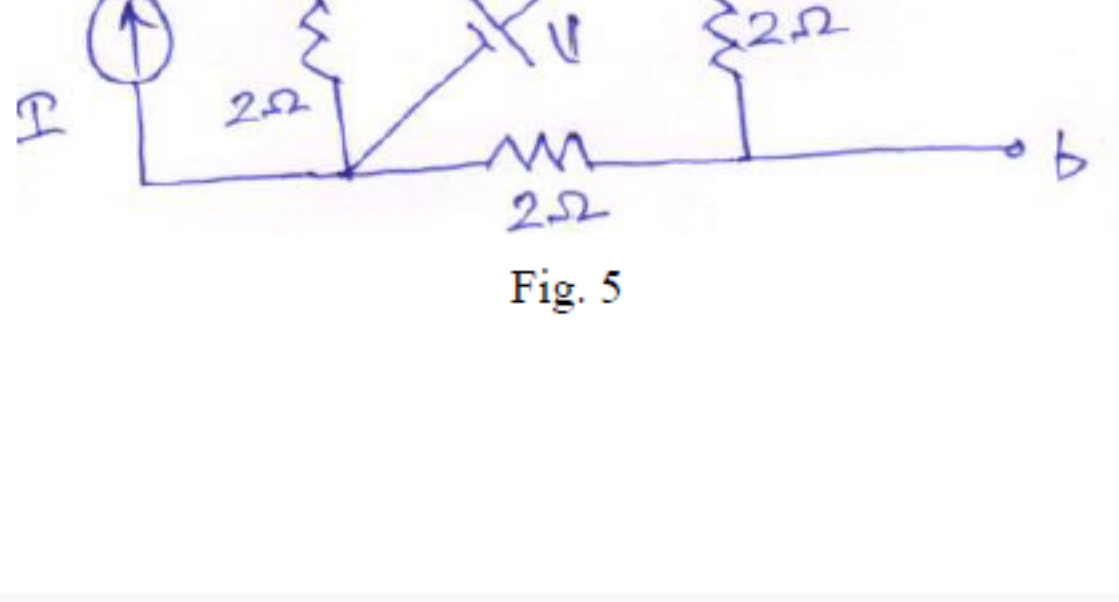


Fig. 5

- a. 1.5
- b. 2
- c. 4
- d. 8

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: b.

8) The maximum power will be absorbed by R_L in Fig. 6, when the value of R_L is? 1 point

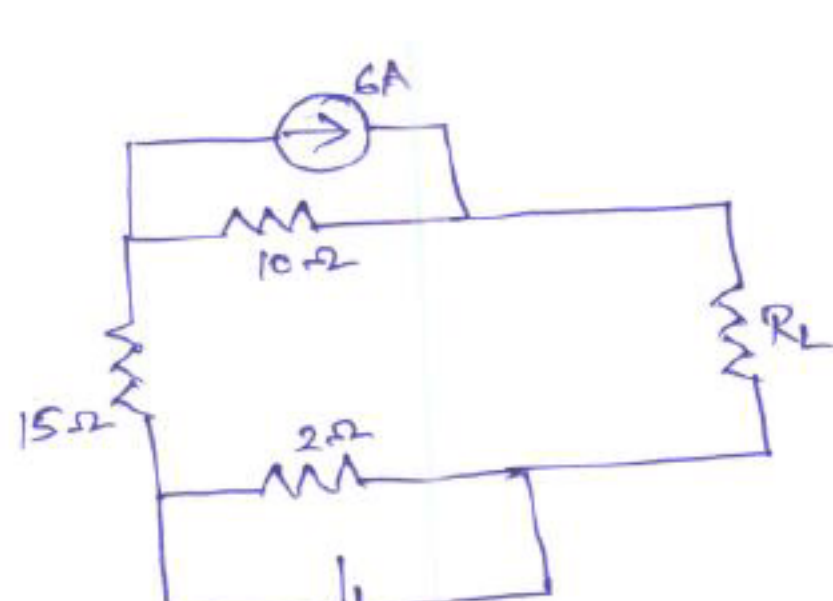


Fig. 6

- a. 2.75 Ω
- b. 7.5 Ω
- c. 25 Ω
- d. 28 Ω

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: c.

9) In the circuit shown in Fig. 7, the maximum power that can be transferred to resistor R, is? 1 point

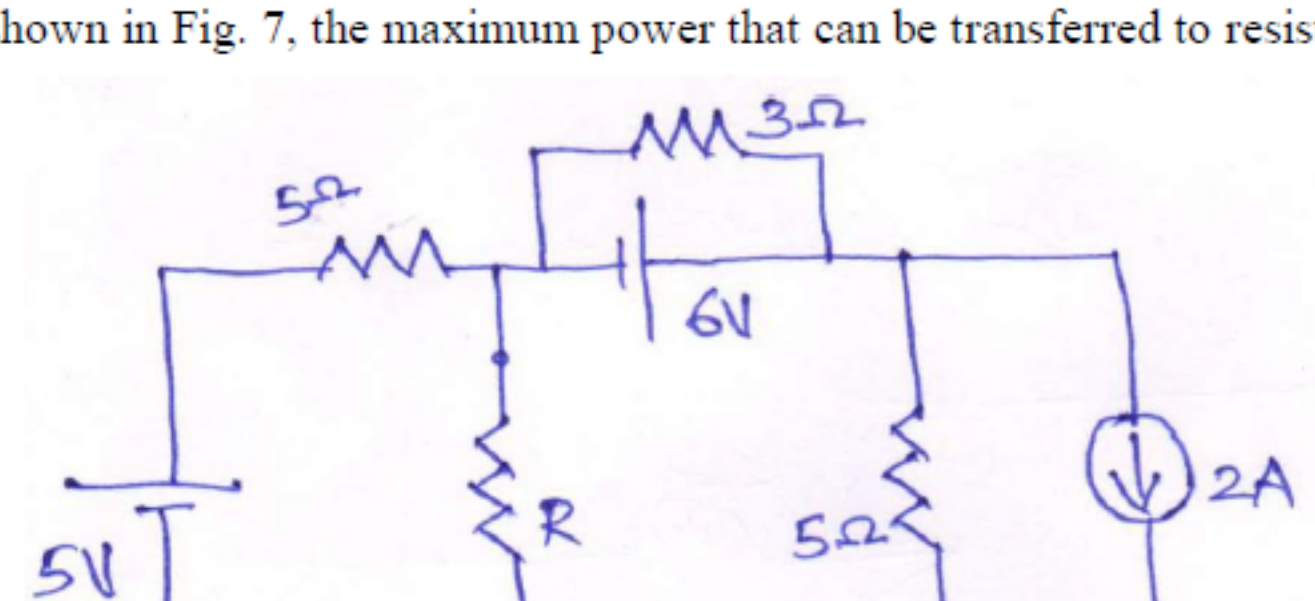


Fig. 7

- a. 1.25 W
- b. 3.025 W
- c. 2.5 W
- d. 5.5 W

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: b.

10) Consider the circuit shown in the Fig. 8. The value of voltage V_x in volts is? 1 point

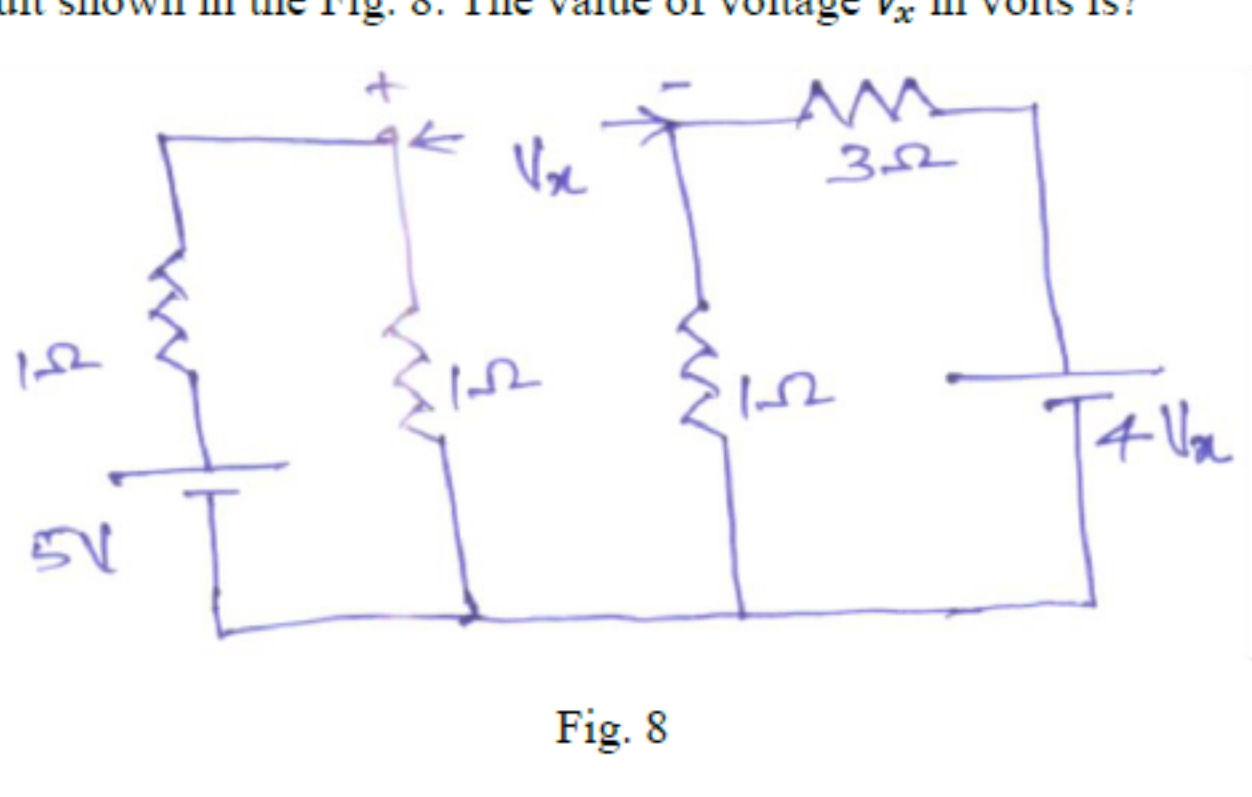


Fig. 8

- a. 1
- b. 1.25
- c. 1.5
- d. 1.75

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: b.

11) For the circuit shown in Fig. 9. The current delivered by 10V source (in Amp) is? 1 point

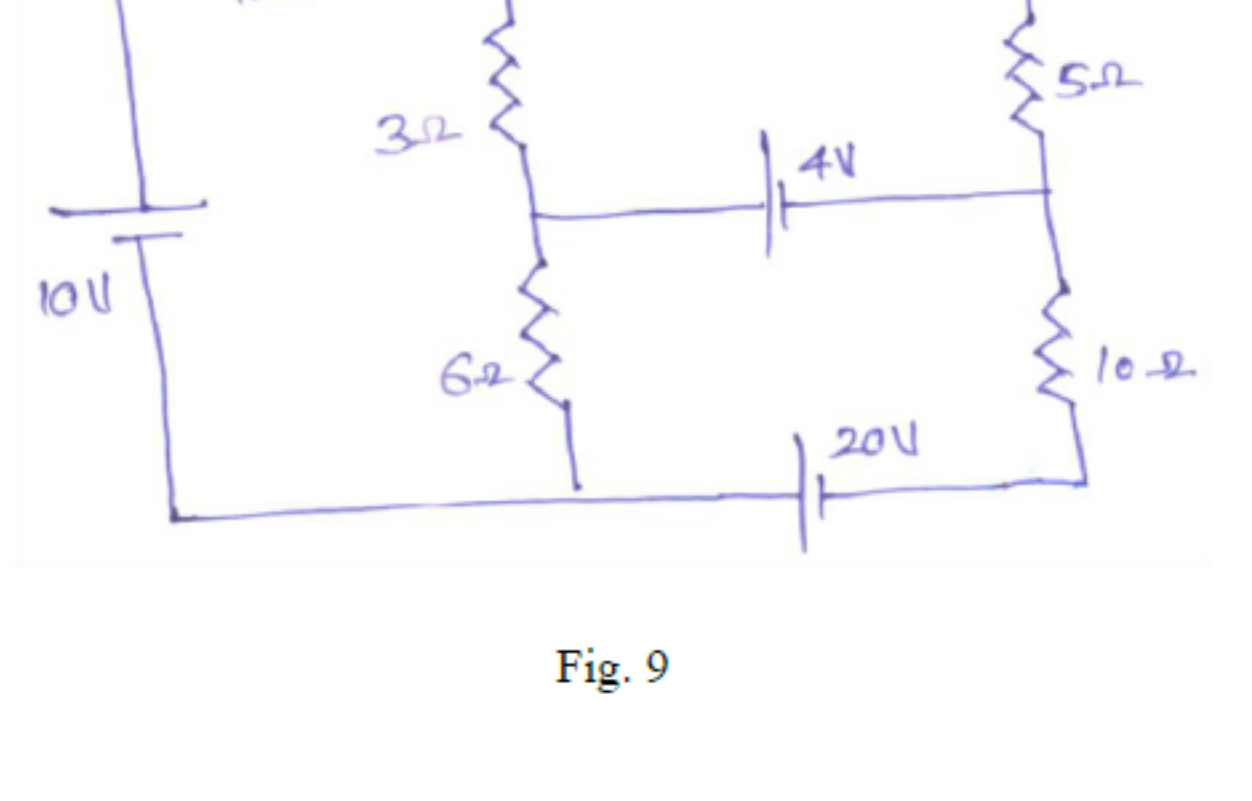


Fig. 9

- a. 3.6 - 3.8
- b. 2.4 - 2.6
- c. 5.1 - 5.4
- d. 6.2 - 6.4

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: b.

12) For the circuit shown in Fig. 10. The current delivered by 4V source (in Amp) is? 1 point

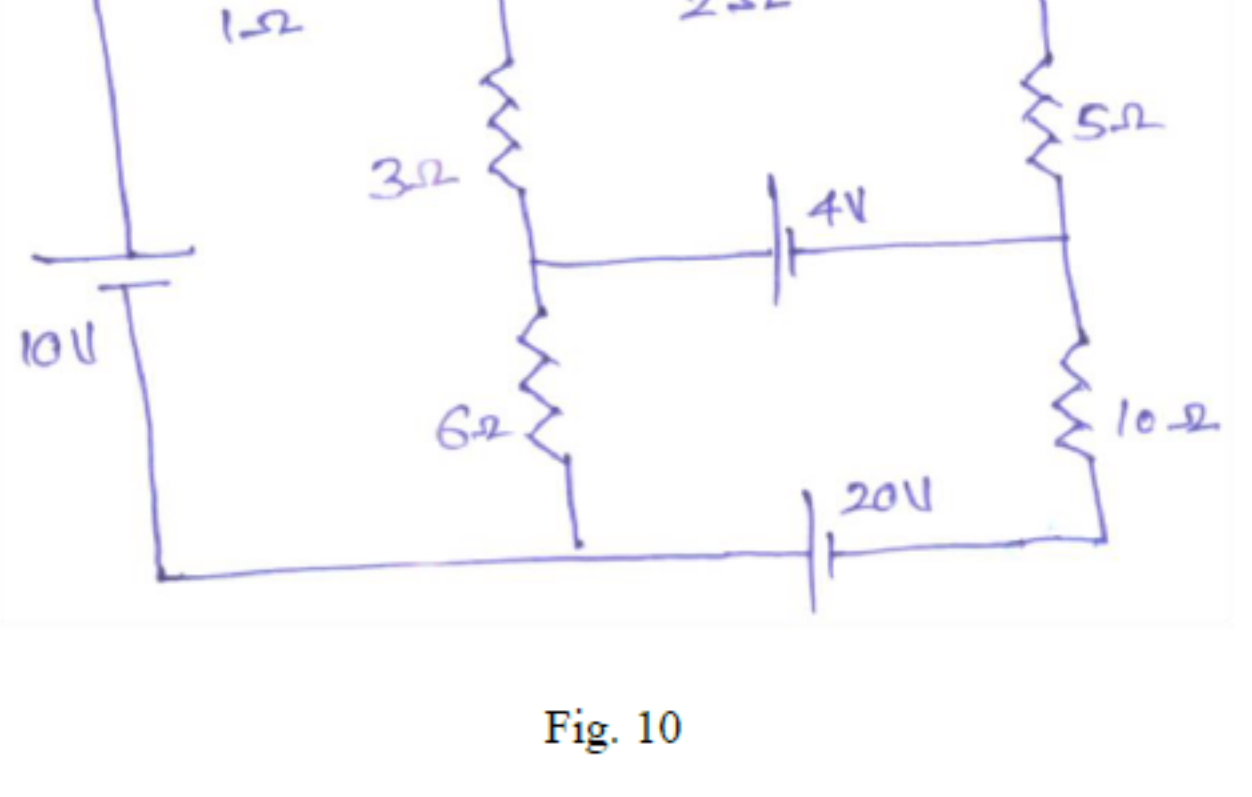


Fig. 10

- a. -0.7 - -0.9
- b. -1.5 - -1.8
- c. 0.7 - 0.9
- d. 1.5 - 1.8

- a.
- b.
- c.
- d.

No, the answer is incorrect. Score: 0

Accepted Answers: a.