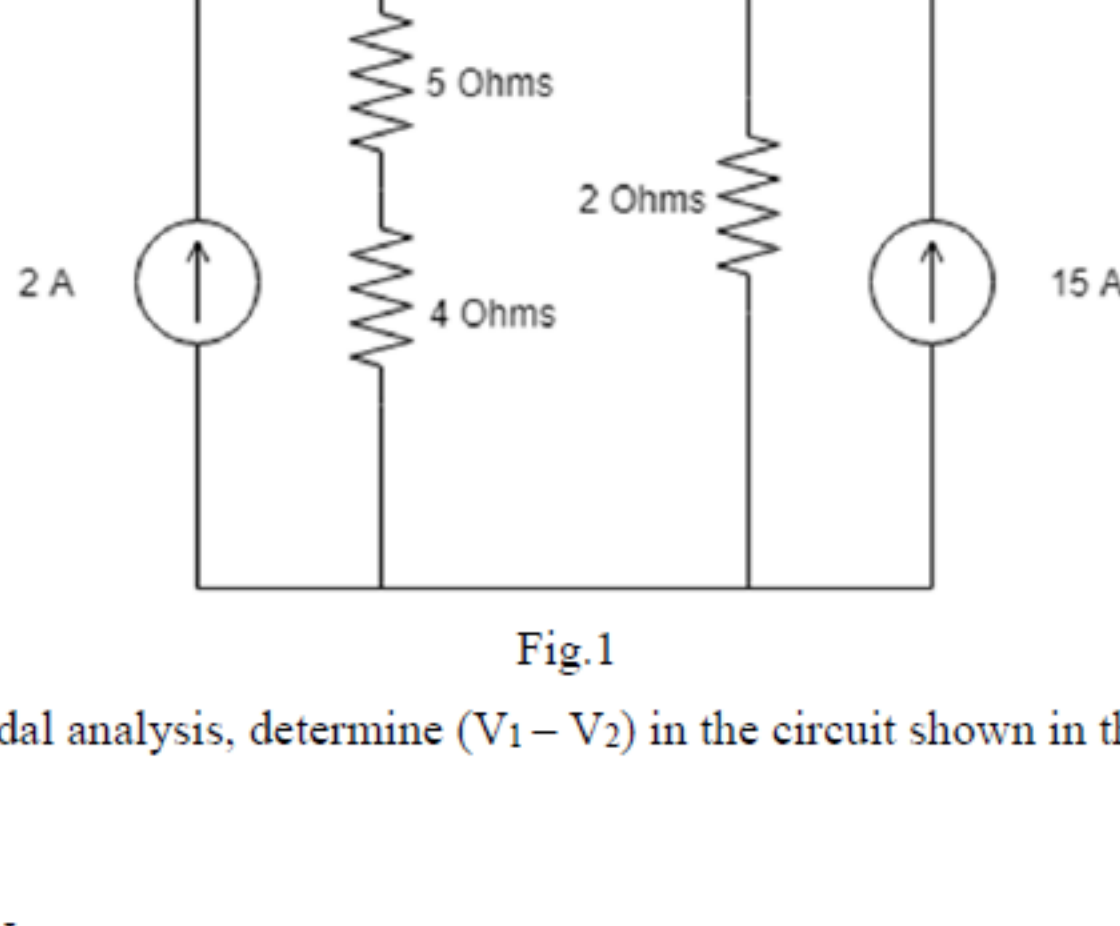


Unit 5 - Week 3

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Week 3 Assignment 3

The due date for submitting this assignment has passed. **Due on 2019-08-21, 23:59 IST.**
As per our records you have not submitted this assignment.

1)  Fig.1

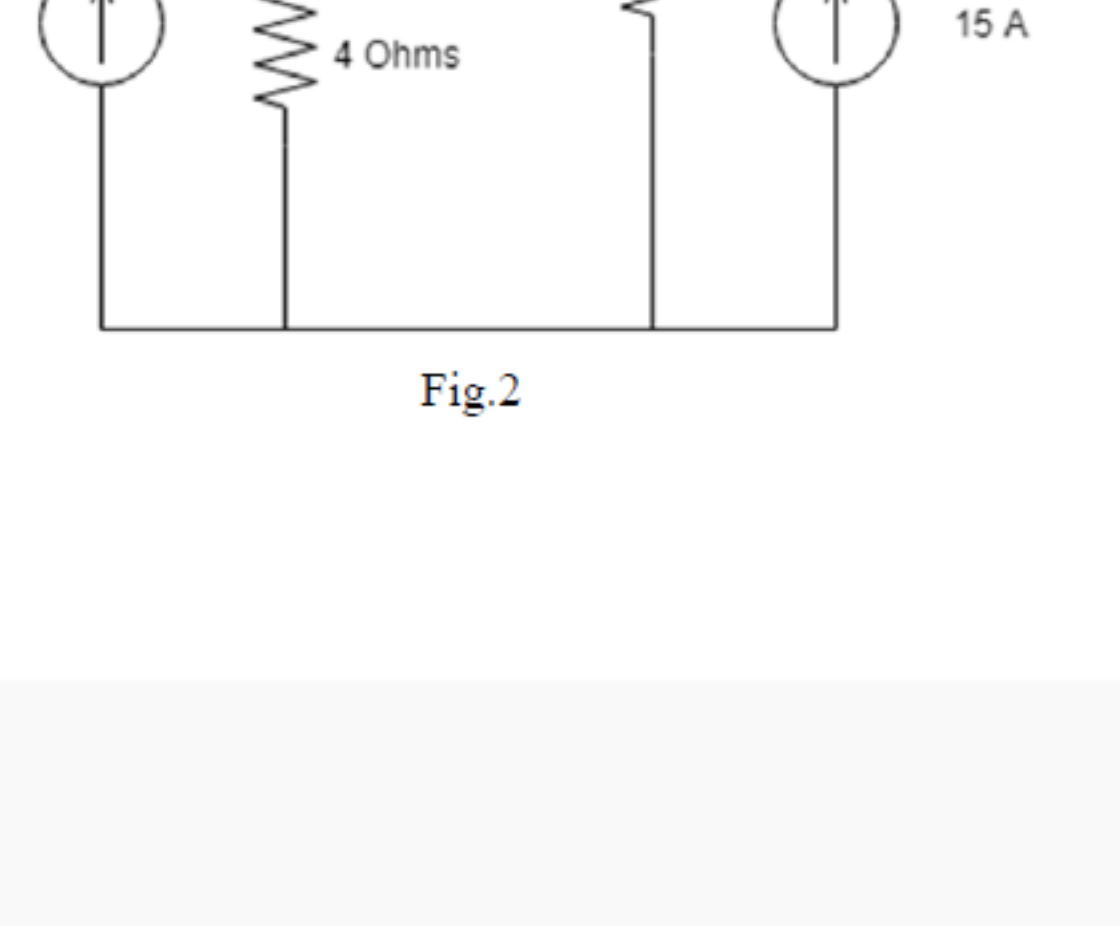
With the help of nodal analysis, determine $(V_1 - V_2)$ in the circuit shown in the fig.1

- 1 V
- 1 V
- 27 V
- 28 V

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: a.

2) For the circuit shown in Fig.2, Find the power delivered (in W) by the 2A current source.

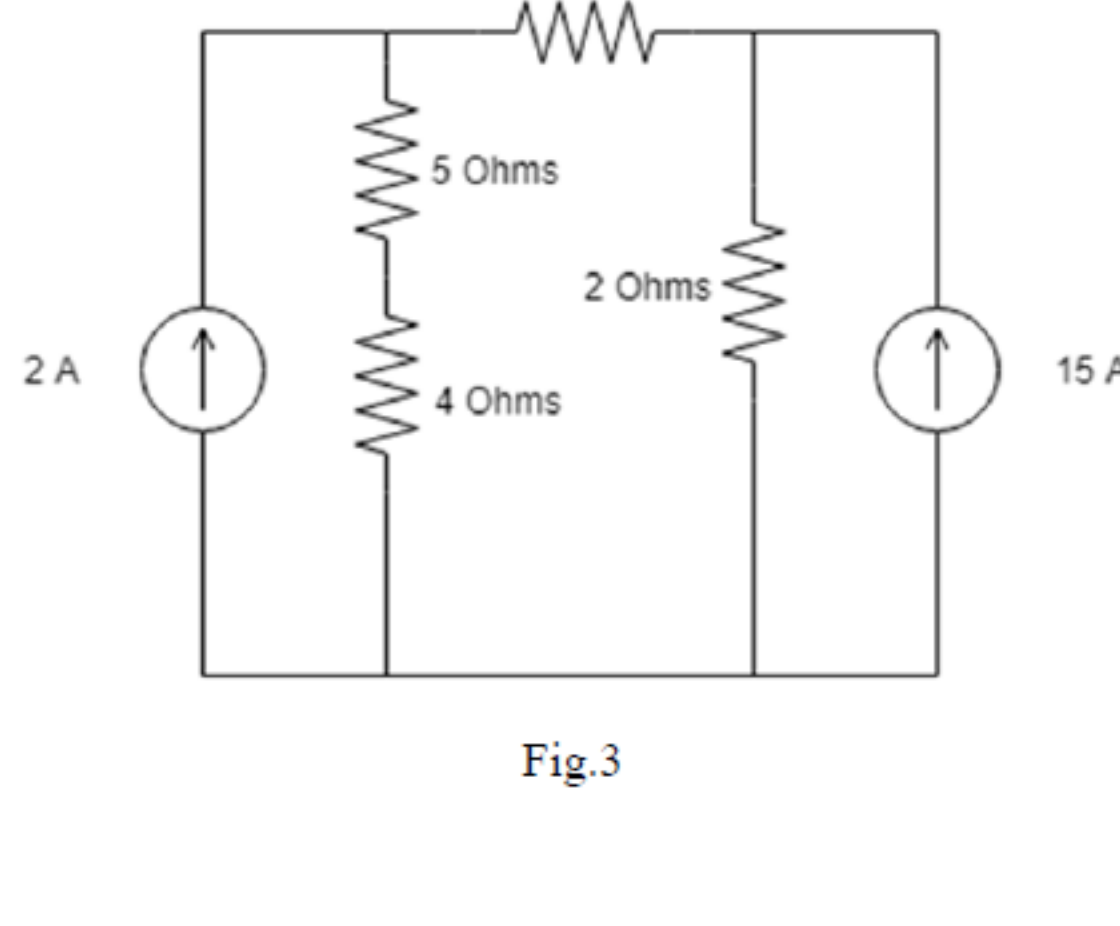
 Fig.2

- 54
- 54
- 56
- 56

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: b.

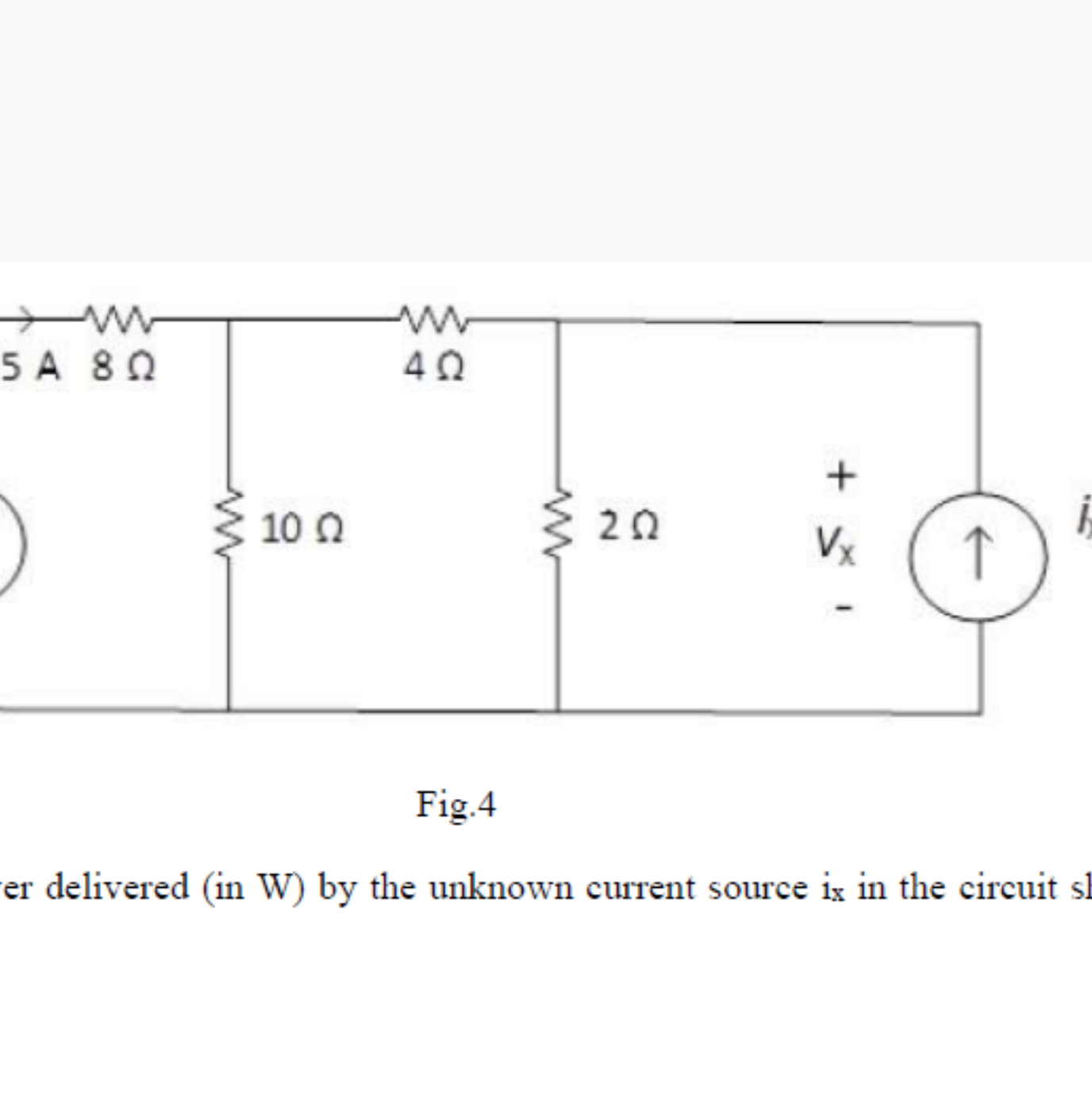
3) For the circuit shown in Fig.3, Find the power absorbed (in W) in the 2Ω resistor.

 Fig.3

- 81
- 420
- 474
- 392

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: d.

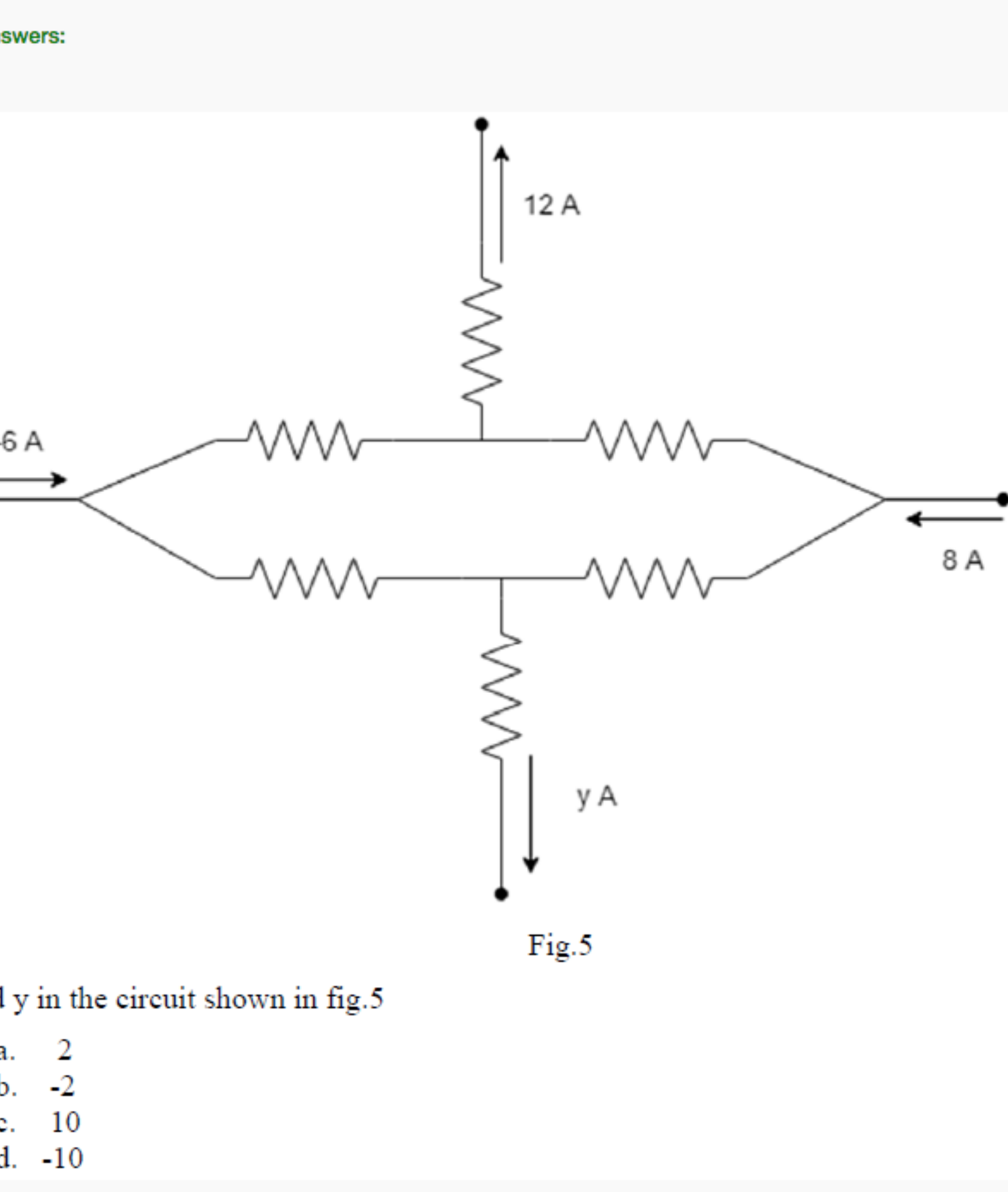
4)  Fig.4

Determine the power delivered (in W) by the unknown current source i_x in the circuit shown in Fig.4

- 6
- 7
- 8
- 9

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: c.

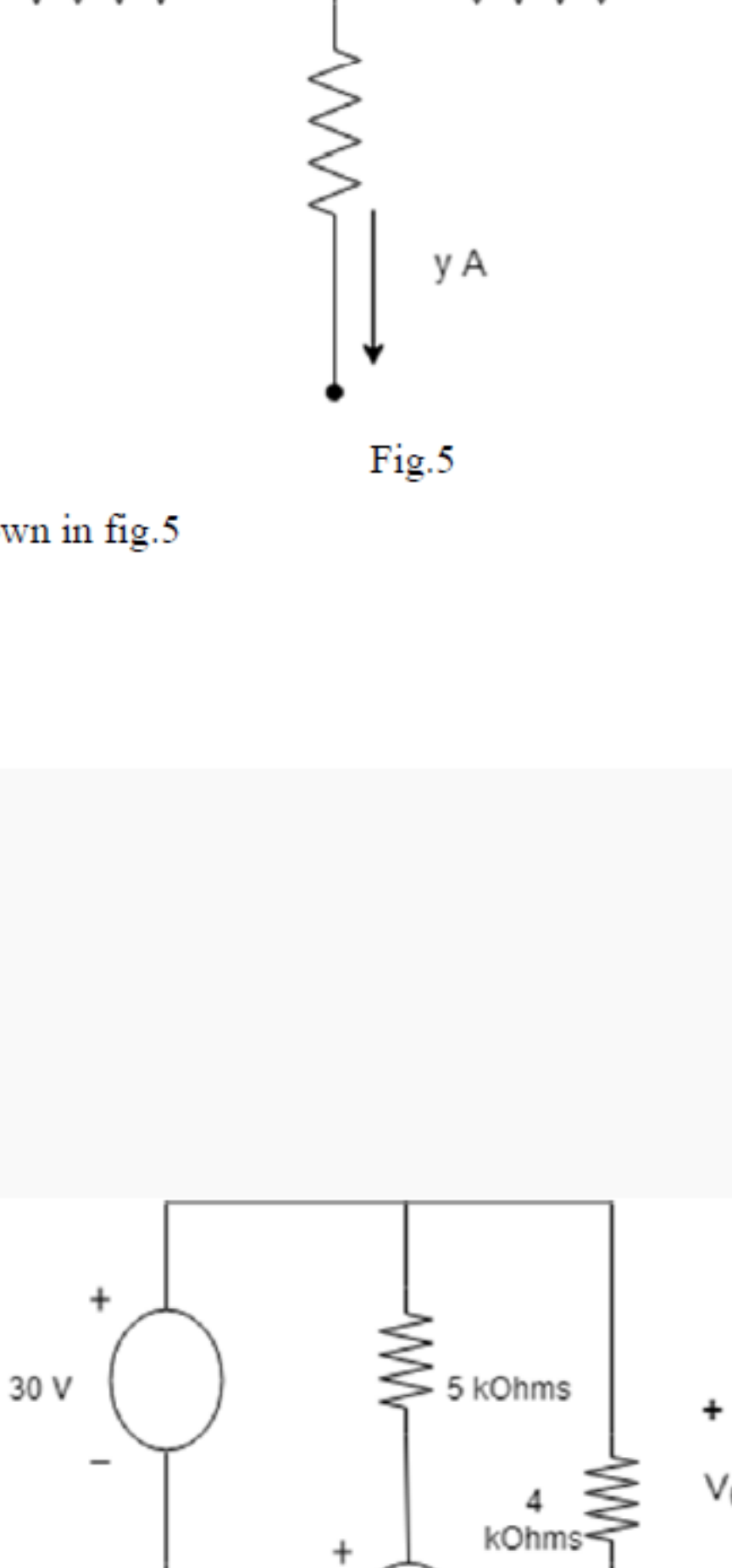
5)  Fig.5

Find y in the circuit shown in fig.5

- 2
- 2
- 10
- 10

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: d.

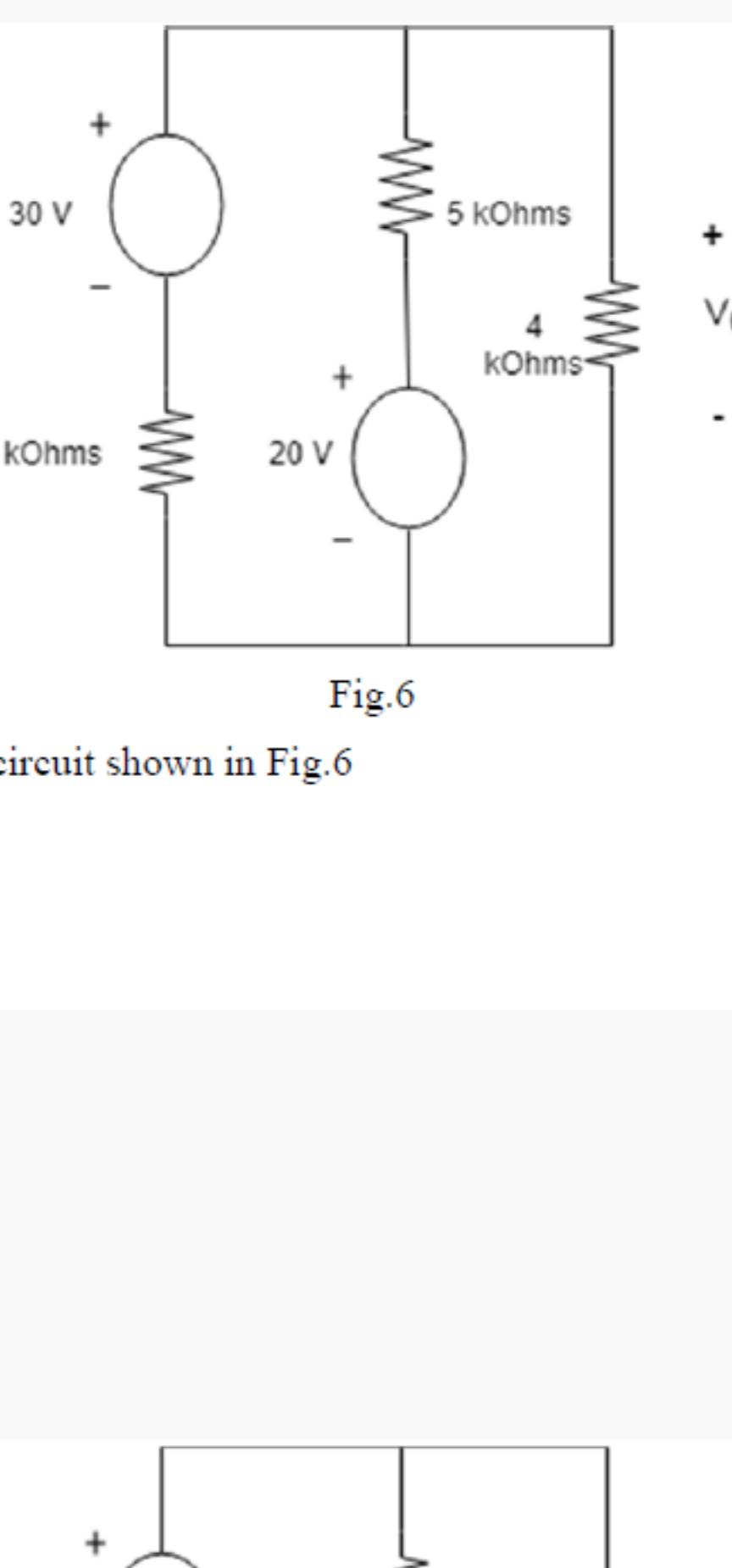
6)  Fig.6

Find V_0 (in Volts) in the circuit shown in Fig.6

- 10
- 20
- 30
- 40

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: b.

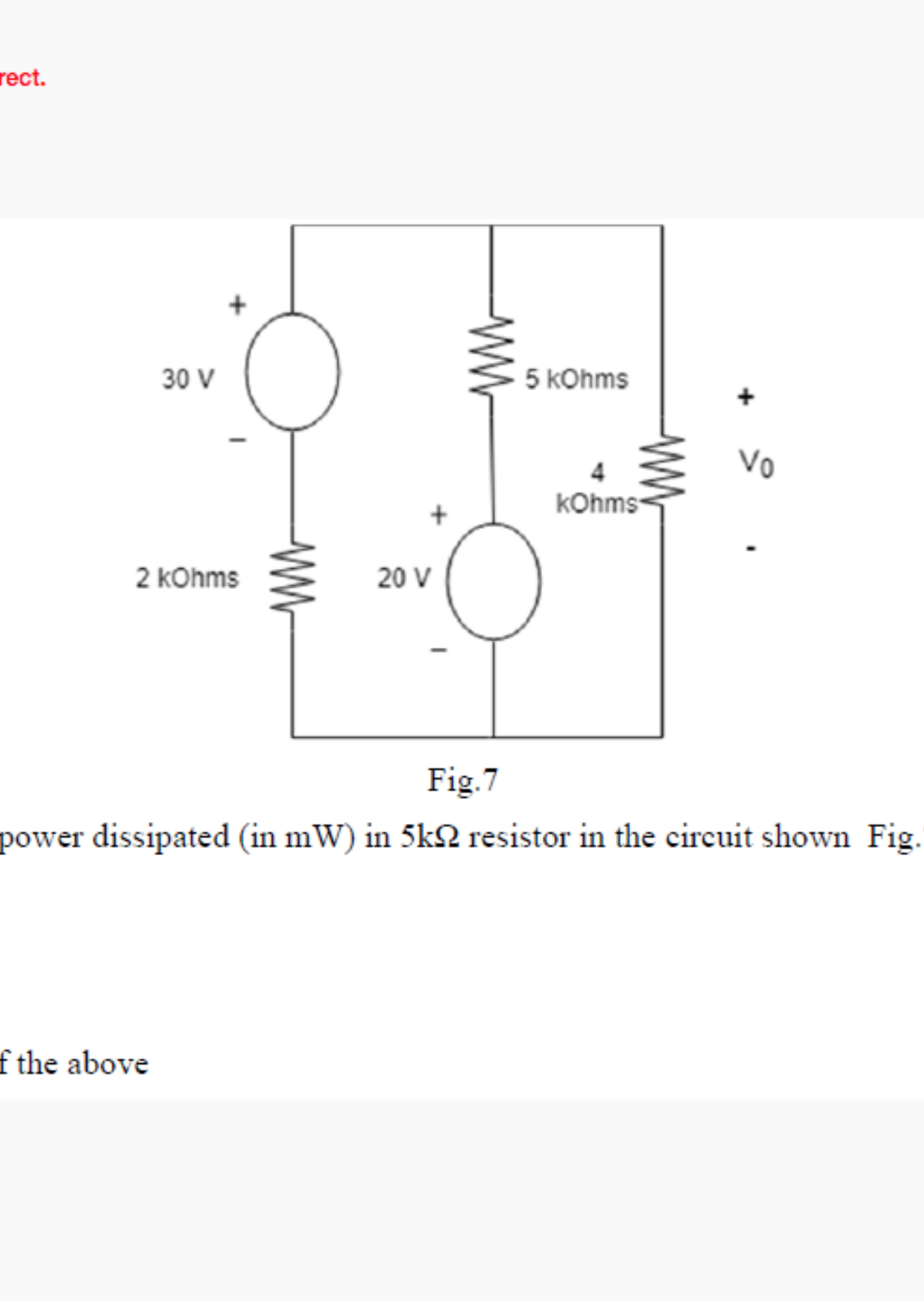
7)  Fig.7

Determine the power dissipated (in mW) in 5kΩ resistor in the circuit shown Fig.7

- 0
- 20
- 80
- None of the above

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: a.

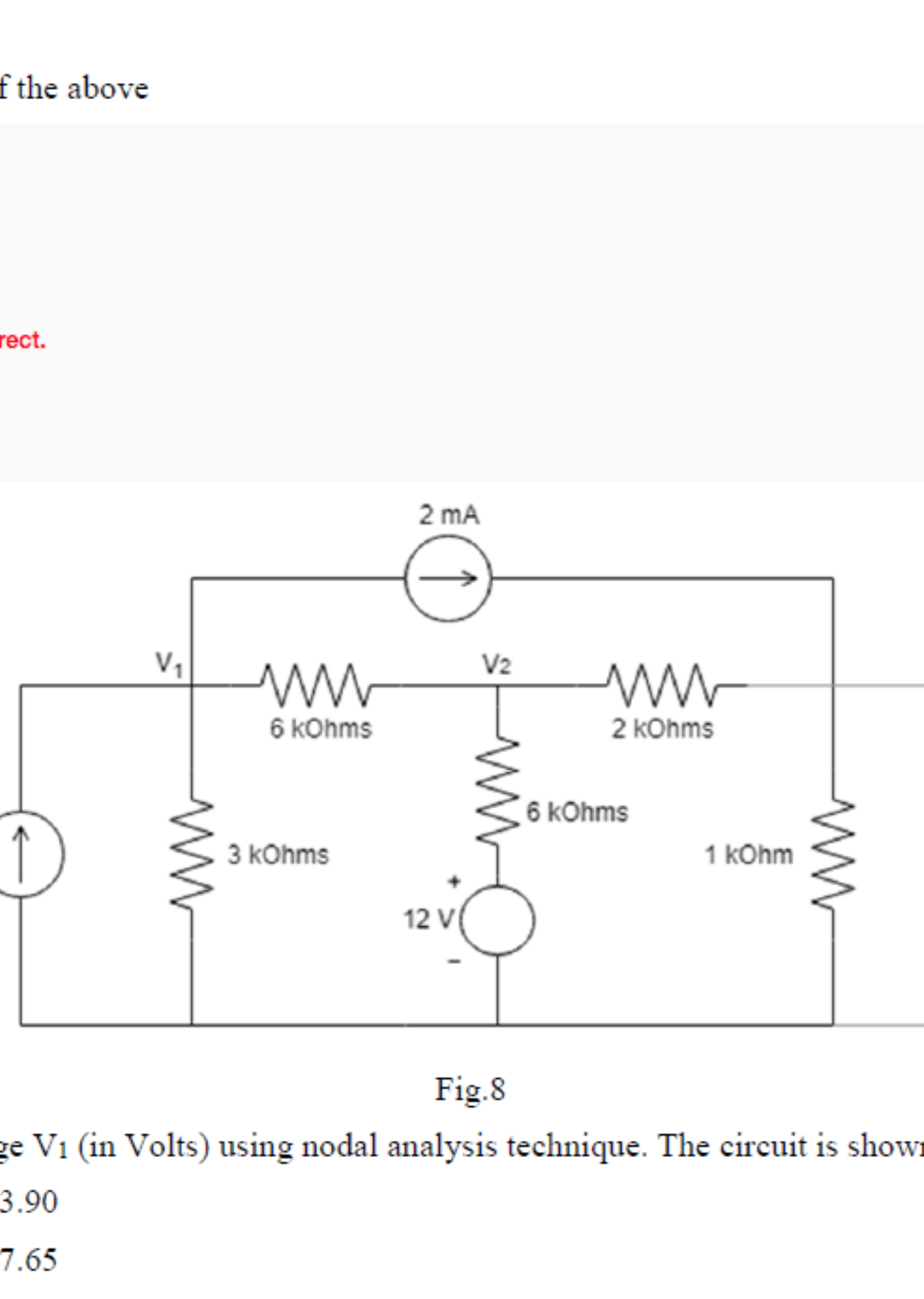
8)  Fig.8

Find the voltage V_1 (in Volts) using nodal analysis technique. The circuit is shown in Fig.8.

- 3.85 - 3.90
- 7.60 - 7.65
- 14.53 - 14.58
- None of the above

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: c.

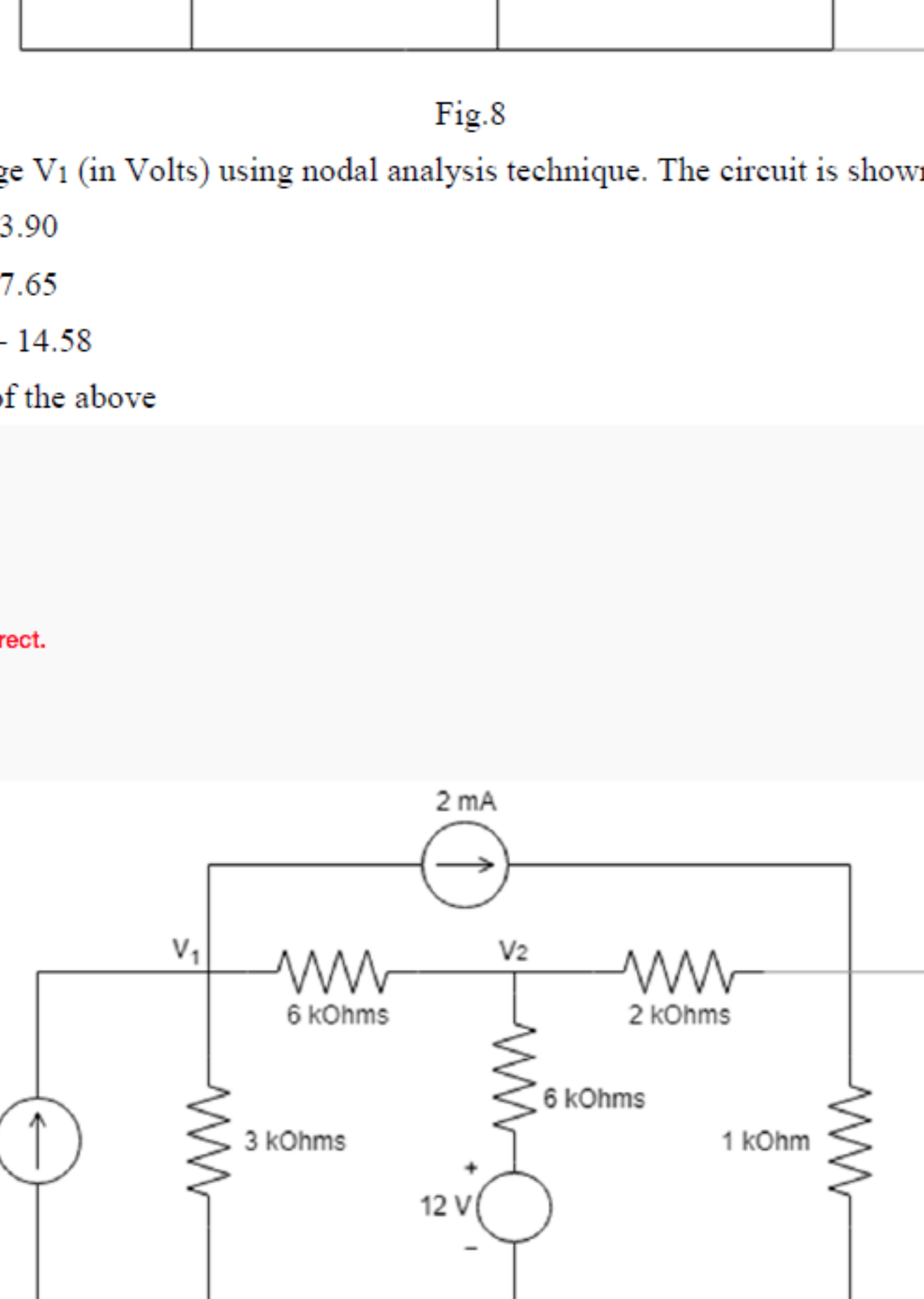
9)  Fig.9

Find the voltage V_2 (in Volts) using nodal analysis technique. The circuit is shown in Fig.9.

- 3.85 - 3.90
- 7.60 - 7.65
- 14.53 - 14.58
- None of the above

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: b.

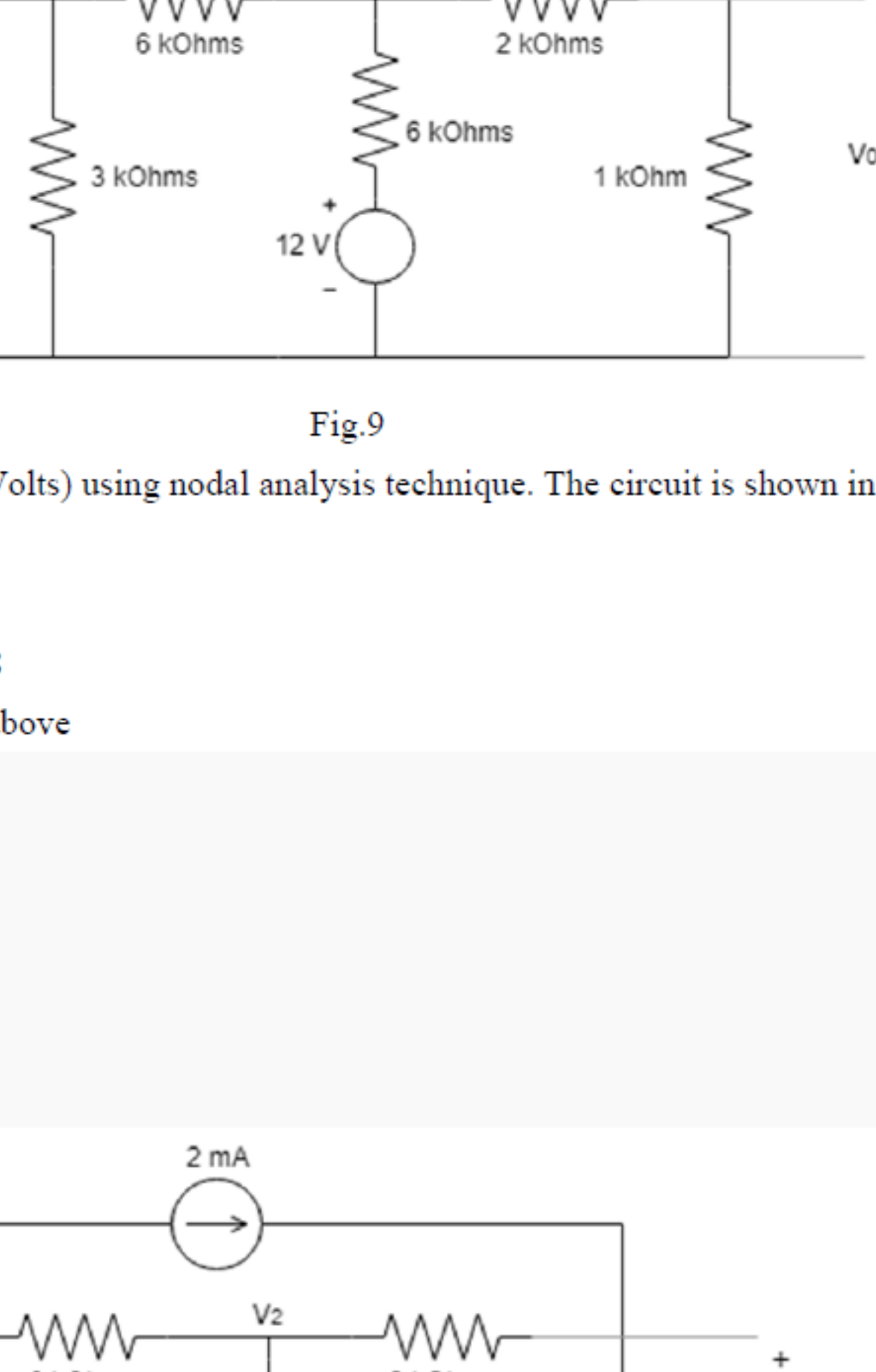
10)  Fig.10

Find the voltage V_0 (in Volts) using nodal analysis technique. The circuit is shown in Fig.10.

- 3.85 - 3.90
- 7.60 - 7.65
- 14.53 - 14.58
- None of the above

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: a.

11)  Fig.11

Applying KCL at node 2 of the circuit shown in Fig.11 gives: (Choose the correct equation)

- $\frac{V_2 - V_1}{4} + \frac{V_2}{8} = \frac{V_2}{6}$
- $\frac{V_1 - V_2}{4} + \frac{V_2}{8} = \frac{V_2}{6}$
- $\frac{V_1 - V_2}{4} + \frac{12 - V_2}{8} = \frac{V_2}{6}$
- $\frac{V_2 - V_1}{4} + \frac{V_2 - 12}{8} = \frac{V_2}{6}$

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: c.

12) In a circuit, there are 22 nodes. The number of independent KCL equations that can be written for the circuit is:

- 21
- 22
- 23
- Number of independent KCL equations will depend on the number of independent voltage and current sources in the circuit

a. b. c. d.

No, the answer is incorrect. Score: 0
Accepted Answers: a.