☑ **SAT1Q (Quiz 1)**

Started on	Monday, 16 October 2023, 7:18 PM
State	Finished
Completed on	Monday, 16 October 2023, 7:33 PM
Time taken	15 mins 1 sec
Grade	**2.50** out of 5.00 (**50%**)

Question 1

Incorrect

Mark 0.00 out of 2.00

⚑ Flag question

Given formula (¬a ∨ b) ∧ (a ∨ ¬b) ∧ (a ∨ b). Which of the following assignments satisfy this formula?

- ☑ 1. none ✘
- ☐ 2. {¬a, ¬b}
- ☐ 3. {¬a, b}
- ☐ 4. {¬a, b}
- ☐ 5. {a, b}

Die Antwort ist falsch.

The correct answer is:
{a, b}

Question 2

Correct

Mark 1.00 out of 1.00

⚑ Flag question

Given the truth table of propositional formula φ over variable a, b, c:

a	b	c	φ
0	0	0	1
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

How many models does φ have?

Answer:

5

✔

The correct answer is: 5

Question 3

Partially correct

Mark 1.50 out of 2.00

⚑ Flag question

Which of the following statements hold?

- ☐ 1. (a ∨ ¬a) ∧ (b ∨ ¬b) ∧ (c) ∧ (¬c) is satisfiable.
- ☑ 2. (¬a ∧ ¬b ∧ c) is a clause. ✘
- ☑ 3. (¬b ∨ ¬c ∨ c) ∧ (¬b ∨ b ∨ c ∨ a) is satisfiable. ✔
- ☐ 4. (¬a) ∧ (¬b) ∧ (¬c) ∧ (a ∨ b ∨ c) is satisfiable.
- ☑ 5. (¬a ∨ b ∨ c) and (b ∨ c ∨ ¬a ∨ c) are equivalent (under any assignment, they have the same value). ✔
- ☐ 6. (¬b ∨ c) is a literal.

Die Antwort ist teilweise richtig.

You have selected too many options.

The correct answers are:
(¬b ∨ ¬c ∨ c) ∧ (¬b ∨ b ∨ c ∨ a) is satisfiable.,

(¬a ∨ b ∨ c) and (b ∨ c ∨ ¬a ∨ c) are equivalent (under any assignment, they have the same value).