Not answered

Marked out of 1.00



Flag question

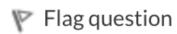
Find

$$(\neg 1010111 \land 1100111) \oplus 1110111$$

Answer:

Not answered

Marked out of 1.00



Given two propositions:

p = "I went to Paris."

q = "I visit Eiffel Tower"

Which sentence on the left corresponds to the expression on the right?

I went to Paris, but I did not visit Eiffel Tower.

Whenever I go to Paris, I visit Eiffel Tower.

I visit Eiffel Tower only if I go to Paris.

I cannot visit Eiffel Tower if I do not go to Paris.

Choose...

Choose...

Choose...

Not answered

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Flag question

Which propositions are tautology?

$$(p \land q) \rightarrow p$$

$$(p \lor r) \land (\neg p \lor q) \rightarrow (q \lor r)$$

$$(p \lor q) \to (p \to q)$$

Choose...

Choose...

Not answered

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Flag question

Which proposition is logically equivalent to

$$(p \rightarrow q) \lor [\neg p \rightarrow (q \lor r)]$$
?

- \bigcirc a. $q \rightarrow r$
- \bigcirc b. $p \lor q \lor r$
- \circ c. $r \lor q$
- O d. T
- e. p∨q

Not answered

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Flag question

Which statements are correct?

$$orall x(P(x)ee Q(x))$$
 and $orall xP(x)ee
abla xQ(x)$ have the same truth values

$$\forall x (P(x) \land Q(x))$$
 and $\forall x P(x) \land \forall x Q(x)$ have the same truth values

$$\forall x (P(x) \to Q(x))$$
 and $\forall x P(x) \to \forall x Q(x)$ have the same truth values

Choose...

Choose...

Not answered

Marked out of 1.00



Let E(x, y) = "x emails y".

Translate the sentence into logical expression, domain is all people.

"Some one received an email from another person"

- a. $\exists x \exists y ((x \neq y) \land E(x,y))$
- lacksquare b. $\exists x\exists y E(x,y)$
- \bigcirc c. $\exists x \exists y ((x \neq y) \lor E(x,y))$
- d. $\exists x \exists y ((x \neq y) \rightarrow E(x,y))$

Flag question

Recall two fallacies:

(I)
$$[(p \rightarrow q) \land q] \rightarrow p$$

$$\text{(II)}[(p \to q) \land \neg p] \to \neg q$$

Given the statement:

"In a right triangle, the sum of three angles is 180° . Therefore, the sum of three angles of an acute triangle is not 180° ."

Choose correct statement:

- a. This is a valid argument
- b. This is a fallacy of type (I)
- c. This is a fallacy of type (II)

Not answered

Marked out of 1.00

Flag question

Find the negation of

$$\forall x \forall y (\exists z T(x,y,z) \land Q(x,y))$$

- \bigcirc a. $\exists x \exists y (\forall z \neg T(x,y,z) \lor Q(x,y))$.
- b. $\exists x \exists y (\forall z \neg T(x,y,z) \lor \neg Q(x,y))$.
- lacksquare c. $orall x\exists y(orall z
 eg T(x,y,z) \wedge
 eg Q(x,y))$.
- od. $\forall x \exists y (\forall z T(x,y,z) \lor Q(x,y))$.

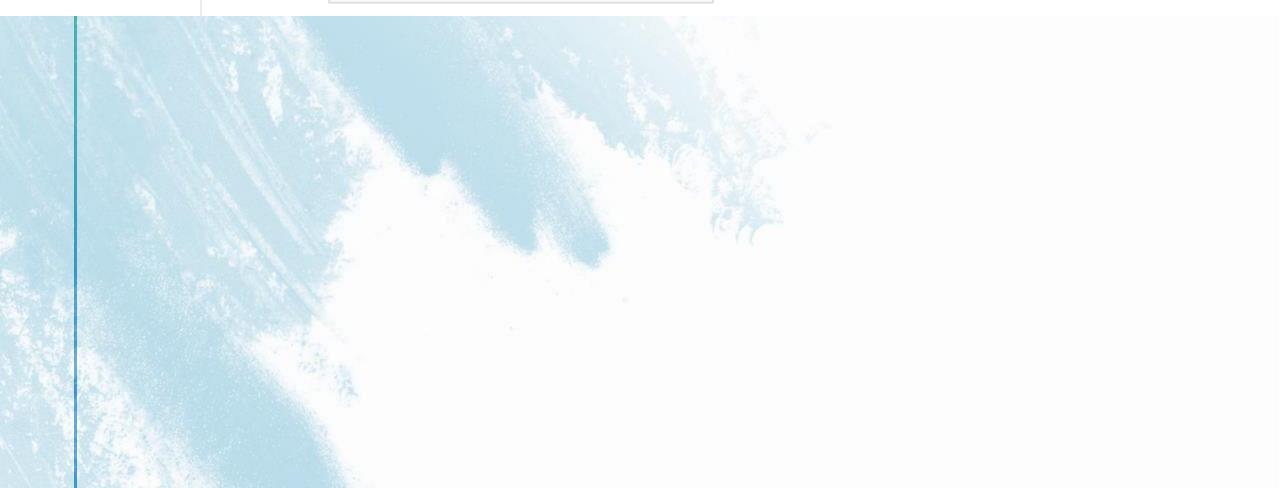
Not answered

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Flag question

Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$. Represent the subset $A = \{2, 5, 7, 8, 9, 10\}$ by a bit string where the i-th bit is 1 if and only if i is in A.

|--|



Not answered

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Flag question

Let A={0, a}, B={0, b}. Determine B x A.

- a. {(0,0), (a, b)}
- b. {(0,0), (0, b), (a, 0), (a, b)}
- c. {(0,0), (b, a), (0, a), (b, 0)}
- d. {(0,0), (0, b), (a, 0), (a, b), (b, a), (0, a), (b, 0)}

Question **1 1**

Not answered

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Flag question

Which rules are functions from R to R?

$$f(x) = \sqrt{x}$$

$$f(x)=1/x$$

$$f(x) = \ln(x)$$

$$f(x) = 2x^2 + 1$$

Choose...

Choose...

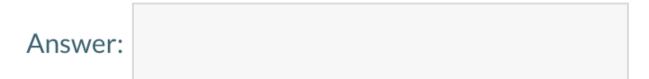
Choose...

Not answered

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Flag question

Let f(X) = 5X + 4, g(X) = 4X + 3. Suppose that $f \circ g(X) = aX + b$. Find a + b.



Not answered

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Flag question

Compute
$$\left\lfloor \frac{3}{2} - \left\lceil 3 + \frac{5}{4} \right\rceil \right\rfloor$$

Answer:

Question **1 1**

Not answered

Marked out of 1.00



Flag question

Let $f: Z \times Z \longrightarrow Z$, f(m, n) = n+1. Choose correct answer:

- a. f is one-to-one but not onto
- b. f is onto but not one-to-one
- c. f(x) is neither one-to-one nor onto
- d. f is a bijection

Not answered

Marked out of 1.00



Flag question

Compute

$$\sum_{i=1}^{6} (2.3^{i} + 3.2^{i}).$$

Answer:



