NOVA SCOTIA MATHEMATICS 12 · UNIT B · 10 QUESTIONS

Set Theory and Logical Reasoning — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Set A has 29 elements, set B has 31 elements, and their intersection has 15 elements. Find the number of elements in A union B.**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **Set A has 26 elements, set B has 20 elements, and their intersection has 7 elements. Find the number of elements in A union B.**

ANSWER _____

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3 **Set A has 36 elements, set B has 24 elements, and their intersection has 16 elements. Find the number of elements in A union B.**

ANSWER _____

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4 **The number of elements in A union B equals**

A elements in A + elements in B - elements in both

B elements in A + elements in B

C elements in A - elements in B

D elements in A × elements in B

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5 **A conditional statement is false only when**

A both parts are true

B the hypothesis is true and the conclusion is false

C both parts are false

D the hypothesis is false

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6 **The negation of all students pass is**

A no student passes

B all students fail

C at least one student does not pass

D some students pass

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7 **Deductive reasoning moves from**

A one example to a general rule

B a guess to a proof

C an observation to a question

D general rules to a specific conclusion

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8 **Inductive reasoning moves from**

A specific examples to a general guess

B general rules to a specific case

C a proof to an example

D a conclusion to a hypothesis

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9 **A valid argument has a conclusion that must follow if**

A the premises are false

B the premises are true

C the conclusion is popular

D the argument is long

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10 **The set of natural numbers includes**

A only even numbers

B only negative numbers

C 1, 2, 3, and so on

D only fractions

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ANSWER KEY

1. 45
2. 39
3. 44
4. A
5. B
6. C
7. D
8. A
9. B
10. C

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