Started on	Tuesday, 10 November 2020, 1:43 PM
State	Finished
Completed on	Tuesday, 10 November 2020, 2:40 PM
Time taken	57 mins 34 secs
Grade	**12.00** out of 20.00 (**60**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

Everybody needs somebody sometime.

Atomic N/A

Your answer is correct.

The correct answer is:

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

Everybody needs somebody sometime.

[Atomic] [N/A]

Question **2**

Correct

Mark 1.00 out of 1.00

Determine whether the sentence below is an atomic statement, a molecular statement, or not a statement at all.

- Customers must wear shoes. Not a Statement

Your answer is correct.

The correct answer is:

Determine whether the sentence below is an atomic statement, a molecular statement, or not a statement at all.

- Customers must wear shoes. [Not a Statement]

Question **3**

Correct

Mark 1.00 out of 1.00

The cardinality of {3, 5, 7, 9, 5} is 5.

Select one:

- True
- False

The correct answer is 'False'.

Question **4**

Correct

Mark 1.00 out of 1.00

Let A = {1, 2, 3, 4, 5} and B = {3, 4, 5, 6, 7}

Find A ∩ B

Select one:

- {5, 6, 7}
- {1, 2, 6, 7}
- {1, 2, 3}
- {3, 4, 5}

Your answer is correct.

The correct answer is: {3, 4, 5}

Question **5**

Correct

Mark 1.00 out of 1.00

In my safe is a sheet of paper with two shapes drawn on it in colored crayon. One is a square, and the other is a triangle. Each shape is drawn in a single color. Suppose you believe me when I tell you that *if the square is blue, then the triangle is green*. What do you therefore know about the truth value of the following statement?

The square and the triangle are both blue. The statement is FALSE

Your answer is correct.

The correct answer is:

In my safe is a sheet of paper with two shapes drawn on it in colored crayon. One is a square, and the other is a triangle. Each shape is drawn in a single color. Suppose you believe me when I tell you that *if the square is blue, then the triangle is green*. What do you therefore know about the truth value of the following statement?

The square and the triangle are both blue. [The statement is FALSE]

Question **6**

Incorrect

Mark 0.00 out of 1.00

Let A = {1, 2, 3, 4, 5} and B = {3, 4, 5, 6, 7}

Find A \ B

Select one:

- {1, 2, 3, 4, 5, 6, 7}
- {1, 2, 6, 7}
- {1, 2}
- {3, 4, 5}

Your answer is incorrect.

The correct answer is: {1, 2}

Question **7**

Incorrect

Mark 0.00 out of 1.00

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

Every natural number greater than 1 is either prime or composite.

Atomic | Disjunction

Your answer is incorrect.

The correct answer is:

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

Every natural number greater than 1 is either prime or composite.

[Molecular] [Conditional]

Question **8**

Not answered

Marked out of 1.00

Find the cardinality of R = {20,21,...,39, 40}

| R | =

The correct answer is: 21

Question **9**

Partially correct

Mark 0.50 out of 1.00

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

The Broncos will win the Super Bowl or I'll eat my hat.

Molecular Disjunction

Your answer is partially correct.

You have correctly selected 1.
The correct answer is:

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

The Broncos will win the Super Bowl or I'll eat my hat.

[Molecular] [Conjunction]

Question **10**

Correct

Mark 1.00 out of 1.00

Determine whether the sentence below is an atomic statement, a molecular statement, or not a statement at all.

- The customers wore shoes. Atomic

Your answer is correct.

The correct answer is:

Determine whether the sentence below is an atomic statement, a molecular statement, or not a statement at all.

- The customers wore shoes. [Atomic]

Question **11**

Correct

Mark 1.00 out of 1.00

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

We can have donuts for dinner, but only if it rains.

Molecular Conditional

Your answer is correct.

The correct answer is:

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

We can have donuts for dinner, but only if it rains.

[Molecular] [Conditional]

Question **12**

Correct

Mark 1.00 out of 1.00

In my safe is a sheet of paper with two shapes drawn on it in colored crayon. One is a square, and the other is a triangle. Each shape is drawn in a single color. Suppose you believe me when I tell you that *if the square is blue, then the triangle is green*. What do you therefore know about the truth value of the following statement?

If the triangle is not green, then the square is not blue. The statement is TRUE

Your answer is correct.

The correct answer is:

In my safe is a sheet of paper with two shapes drawn on it in colored crayon. One is a square, and the other is a triangle. Each shape is drawn in a single color. Suppose you believe me when I tell you that *if the square is blue, then the triangle is green*. What do you therefore know about the truth value of the following statement?

If the triangle is not green, then the square is not blue. [The statement is TRUE]

Question **13**

Partially correct

Mark 0.50 out of 1.00

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

The sum of the first 100 odd positive integers.

Not a statement | N/A

Your answer is partially correct.

You have correctly selected 1.
The correct answer is:

Classify the sentence below as an atomic statement, a molecular statement, or not a statement at all. If the statement is molecular, identify what kind it is (conjuction, disjunction, conditional, biconditional, negation).

The sum of the first 100 odd positive integers.

[Atomic] [N/A]

Question **14**

Not answered

Marked out of 1.00

Find the cardinality of S = {1, {2,3,4},0}

| S | =

The correct answer is: 3

Question **15**

Correct

Mark 1.00 out of 1.00

Let A = {1, 2, 3, 4, 5} and B = {3, 4, 5, 6, 7}

Find A U B

Select one:

- {1, 2, 6, 7}
- {3, 4, 5}
- {1, 2, 3, 4, 5, 6, 7}
- {1, 2, 3, 5, 6, 7}

Your answer is correct.

The correct answer is: {1, 2, 3, 4, 5, 6, 7}

Question **16**

Correct

Mark 1.00 out of 1.00

Find |A ∩ B| when A = {1, 3, 5, 7, 9} and B {2, 4, 6, 8, 10}

Answer: 0

The correct answer is: 0

Question **17**

Incorrect

Mark 0.00 out of 1.00

Find | R | when R = {2, 4, 6,..., 180}

Answer: {2x ∈ N | 1 ≤ x ≤ 90}

The correct answer is: 90

Question **18**

Incorrect

Mark 0.00 out of 1.00

In my safe is a sheet of paper with two shapes drawn on it in colored crayon. One is a square, and the other is a triangle. Each shape is drawn in a single color. Suppose you believe me when I tell you that *if the square is blue, then the triangle is green*. What do you therefore know about the truth value of the following statement?

The square and the triangle are both green. The statement is TRUE

Your answer is incorrect.

The correct answer is:

In my safe is a sheet of paper with two shapes drawn on it in colored crayon. One is a square, and the other is a triangle. Each shape is drawn in a single color. Suppose you believe me when I tell you that *if the square is blue, then the triangle is green*. What do you therefore know about the truth value of the following statement?

The square and the triangle are both green. [The statement is FALSE]

Question **19**

Correct

Mark 1.00 out of 1.00

Determine whether the sentence below is an atomic statement, a molecular statement, or not a statement at all.

- The customers wore shoes and they wore socks. Molecular

Your answer is correct.

The correct answer is:

Determine whether the sentence below is an atomic statement, a molecular statement, or not a statement at all.

- The customers wore shoes and they wore socks. [Molecular]

Question **20**

Not answered

Marked out of 1.00

Let A = {3, 4, 5}. Find the cardinality of P(A).

Answer:

The correct answer is: 8