Truth Table Questions

1 = True
0 = False

Truth tables come up in exams regularly

08.1 Complete the truth table for the XOR logic gate

[2 marks]

A	B	A XOR B
0	0	
0	1	
1	0	
1	1	

Truth Table Questions

1 = True
0 = False

0 3 . 1 State the name of the logic gate represented by the following truth table.

[1 mark]

Input A	Input B	Output
0	0	0
0	1	0
1	0	0
1	1	1

Logic gate _____

Truth Table Questions

1 = True
0 = False

0 8 . 1 Complete the truth table for the AND logic gate.

[1 mark]

A	B	A AND B
0	0	
0	1	
1	0	
1	1	

Truth Tables

1 = True
0 = False

NOT(A AND B)

A	B	NOT(A AND B)
1	1	
1	0	
0	1	
0	0	

Can you also:

- write the notation form for the logic statement?
- draw the circuit diagram?

Truth Tables

1 = True
0 = False

NOT(A AND B)

A	B	A AND B	NOT(A AND B)
1	1		
1	0		
0	1		
0	0		

Can you also:

- write the notation form for the logic statement?
- draw the circuit diagram?

Truth Tables

1 = True
0 = False

(NOT A) OR B

A	B	(NOT A) OR B
1	1	
1	0	
0	1	
0	0	

Can you also:

- write the notation form for the logic statement?
- draw the circuit diagram?

Truth Tables

1 = True
0 = False

(NOT A) OR B

A	B	NOT A	(NOT A) OR B
1	1		
1	0		
0	1		
0	0		

Can you also:

- write the notation form for the logic statement?
- draw the circuit diagram?

Truth Tables

1 = True
0 = False

(A OR B) AND C

A	B	C	(A OR B) AND C
1	1	1	
1	1	0	
1	0	1	
1	0	0	
0	1	1	
0	1	0	
0	0	1	
0	0	0	

Truth Tables

1 = True
0 = False

(A OR B) AND C

A	B	C	A OR B	(A OR B) AND C
1	1	1		
1	1	0		
1	0	1		
1	0	0		
0	1	1		
0	1	0		
0	0	1		
0	0	0		

Truth Tables

1 = True
0 = False

(A AND B) OR NOT C

A	B	C	(A AND B) OR NOT C
1	1	1	
1	1	0	
1	0	1	
1	0	0	
0	1	1	
0	1	0	
0	0	1	
0	0	0	

Truth Tables

1 = True
0 = False

(A AND B) OR NOT C

A	B	C	R = A AND B	S = NOT C	R OR S = (A AND B) OR NOT C
1	1	1			
1	1	0			
1	0	1			
1	0	0			
0	1	1			
0	1	0			
0	0	1			
0	0	0			

Truth Table Questions

1 = True
0 = False

0 5 . 5 Complete the truth table for the Boolean expression:

```
(X AND Y) OR (NOT X)
```

[3 marks]

X	Y	X AND Y	NOT X	(X AND Y) OR (NOT X)
0	0			
0	1			
1	0			
1	1			