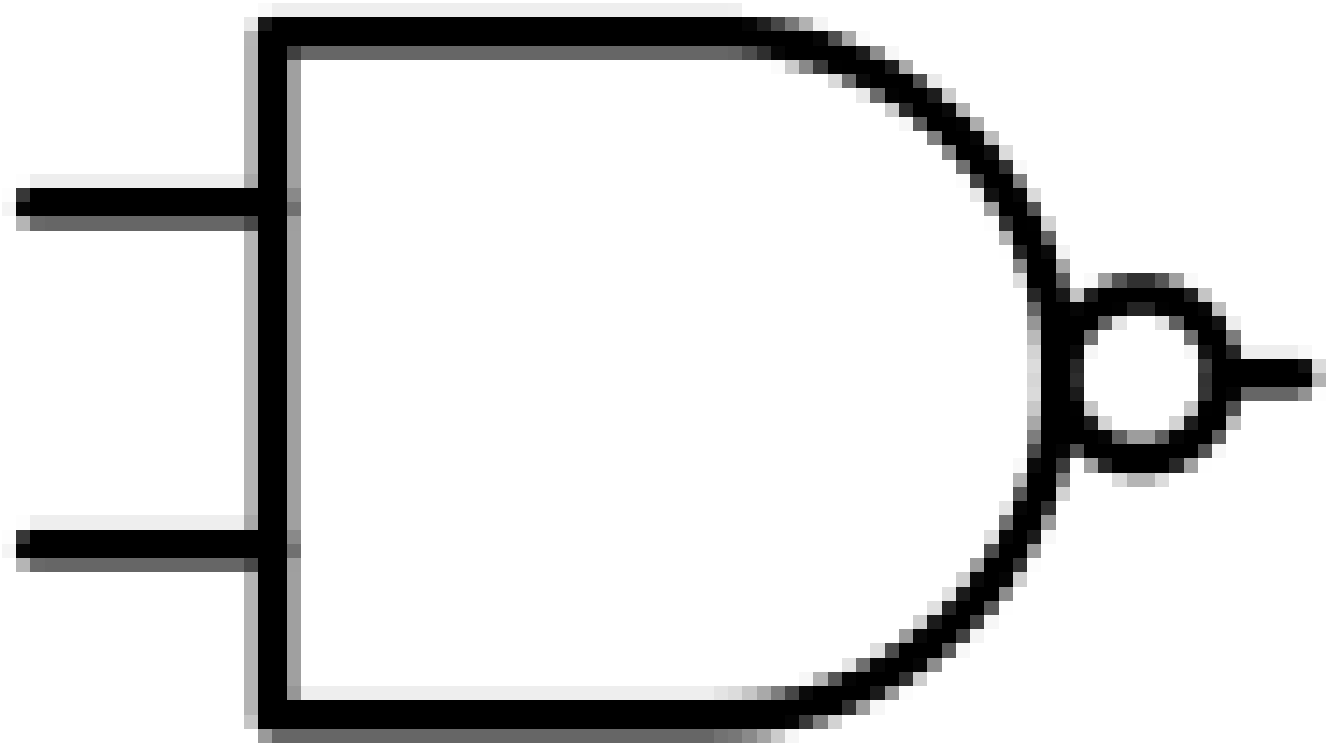
Question 1:

What is the output of the NAND gate with inputs 1, 0?

Options:

1. 0

2. 1



Correct Answer: 1

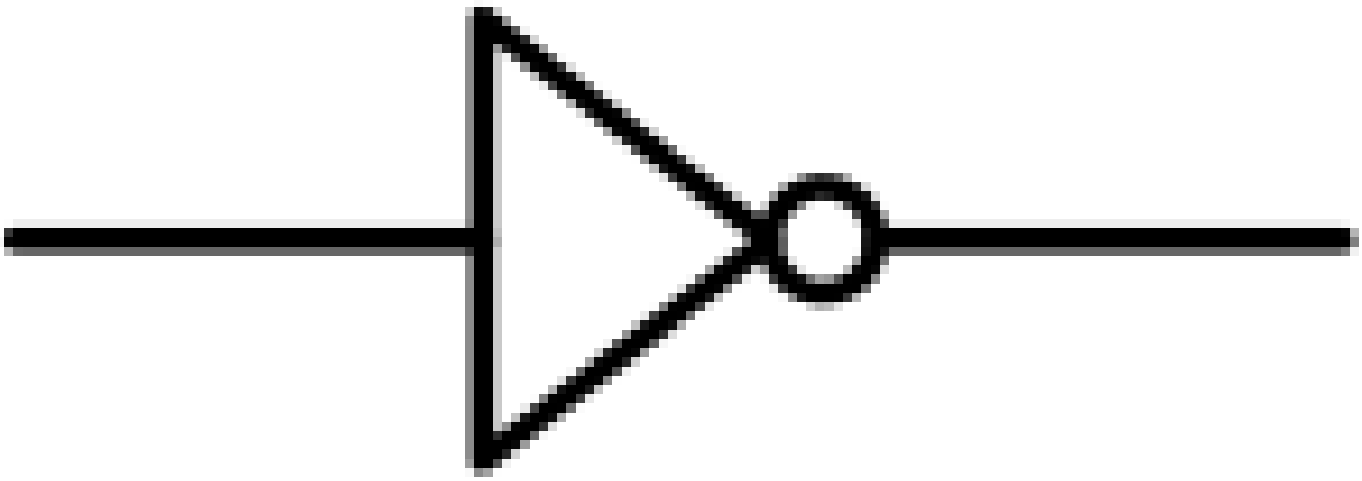
Question 2:

What is the output of the NOT gate with input 1?

Options:

1. 0

2. 1



Correct Answer: 0

Question 3:

Are these two circuits equivalent?

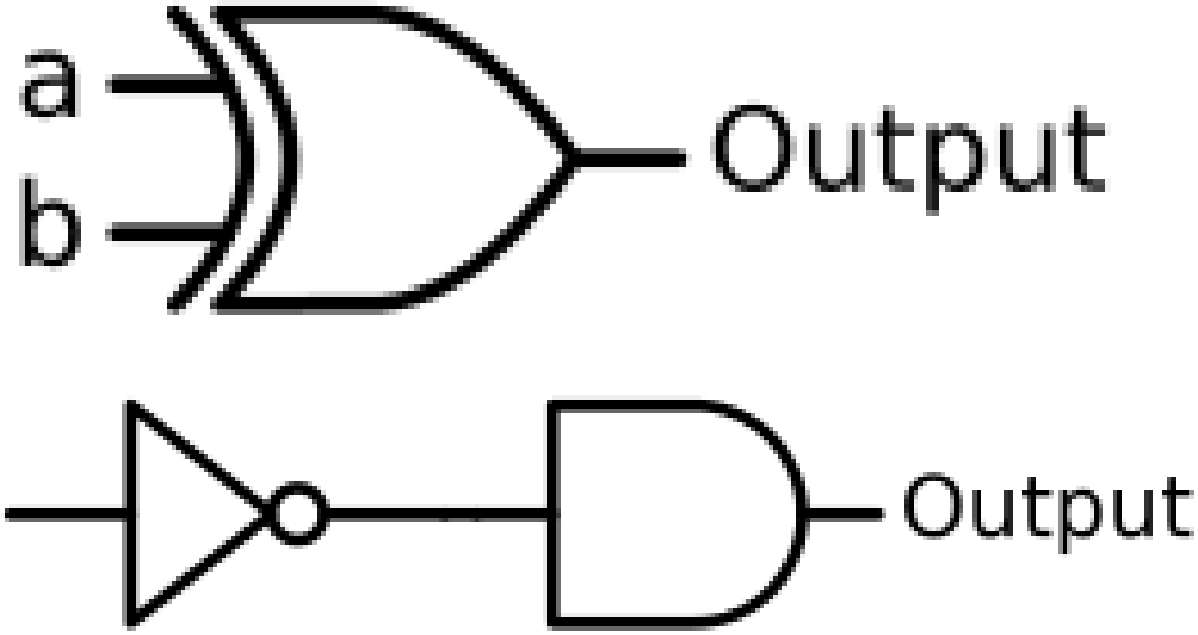
Expression 1: (not (a xnor b))

Expression 2: (not (not c))

Options:

1. Yes

2. No



Correct Answer: no

Question 4:

Are these two circuits equivalent?

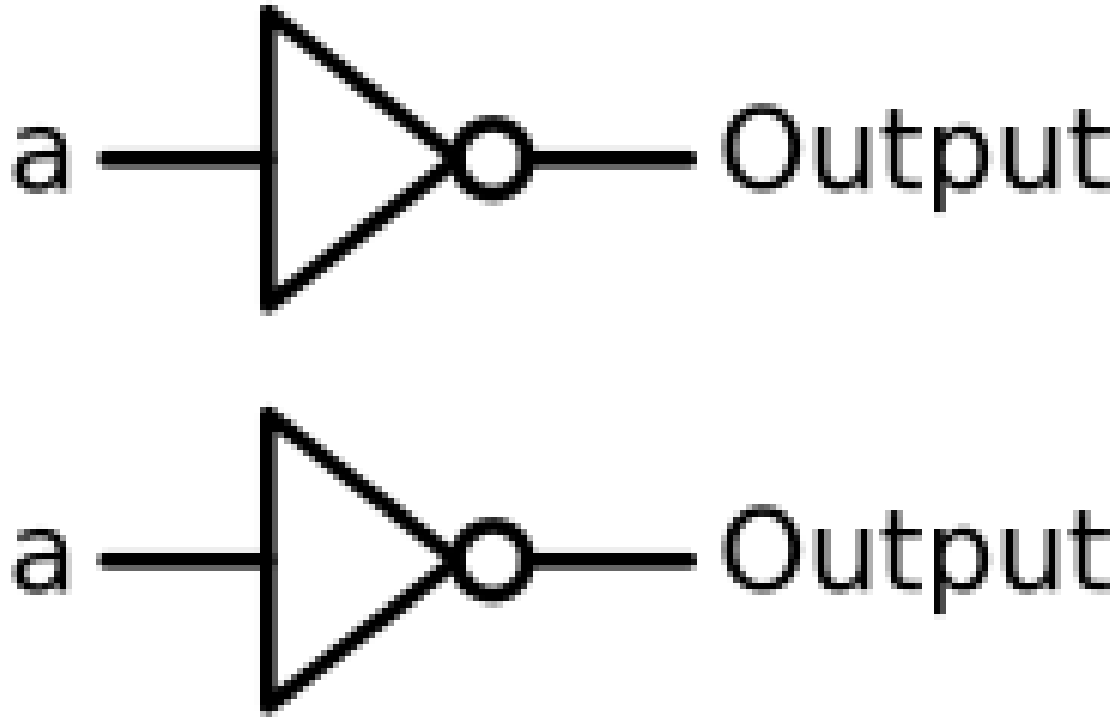
Expression 1: (not a)

Expression 2: (not a)

Options:

1. Yes

2. No



Correct Answer: yes

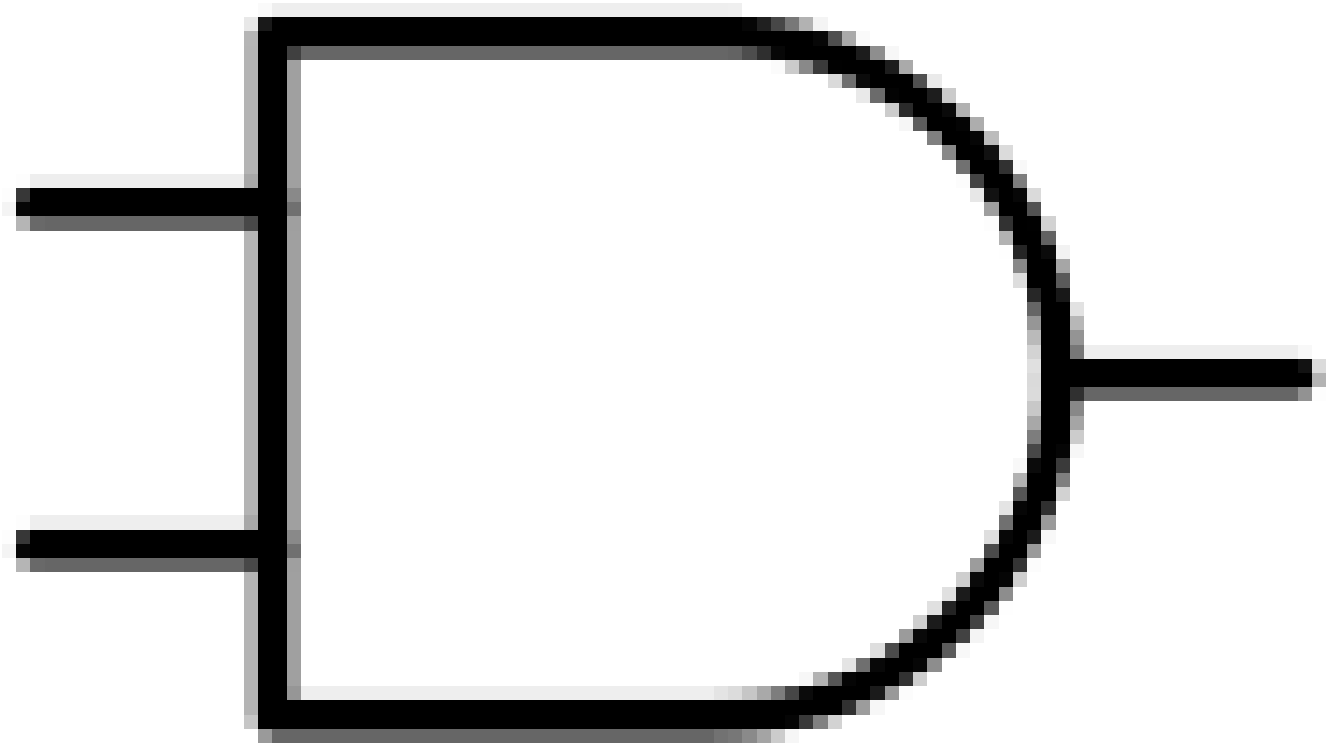
Question 5:

What is the output of the AND gate with inputs 1, 1?

Options:

1. 1

2. 0



Correct Answer: 1

Question 6:

Are these two circuits equivalent?

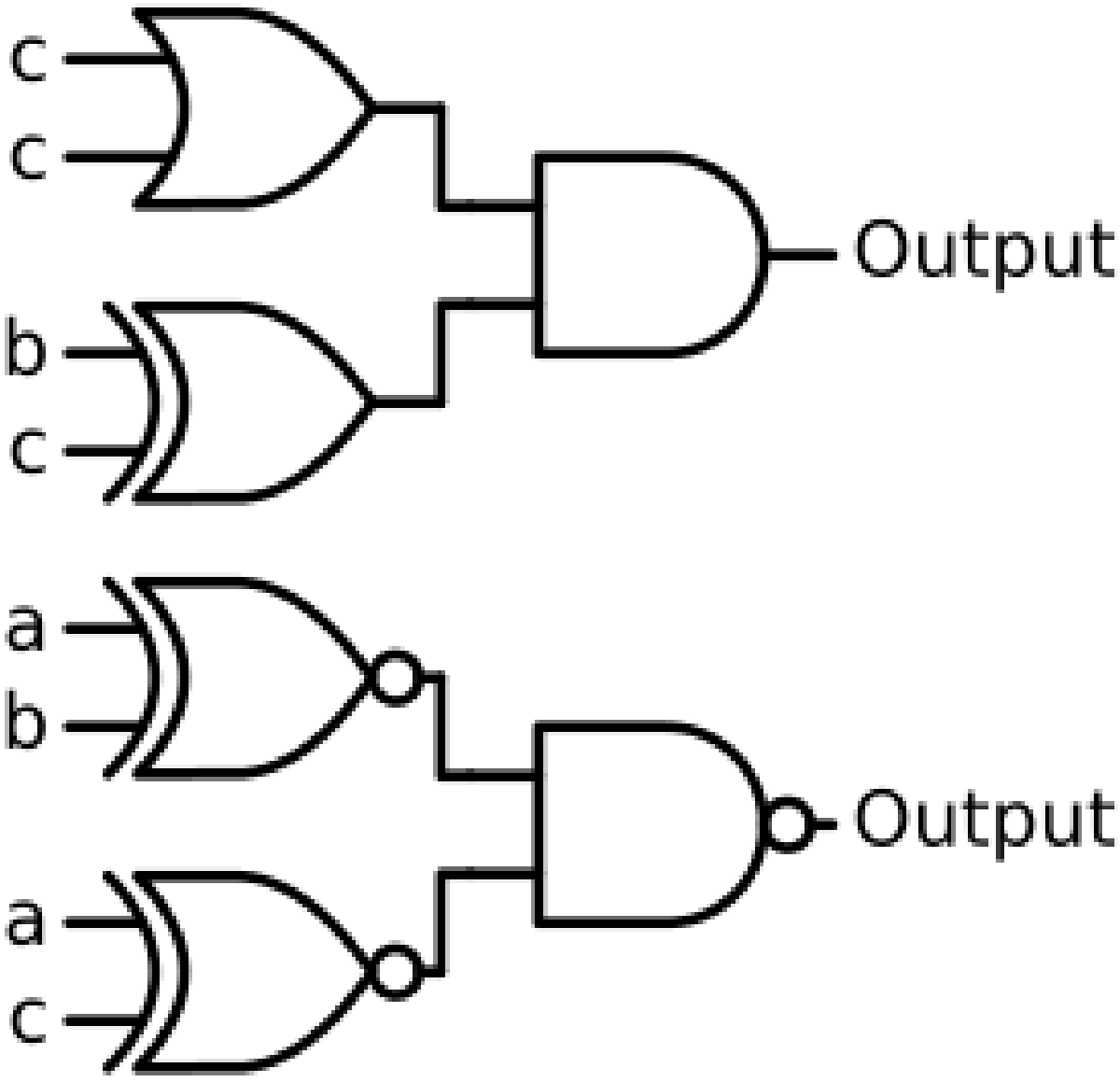
Expression 1: ((c or c) and (b xor c))

Expression 2: ((a xnor b) nand (a xnor c))

Options:

1. Yes

2. No



Correct Answer: no

Question 7:

Are these two circuits equivalent?

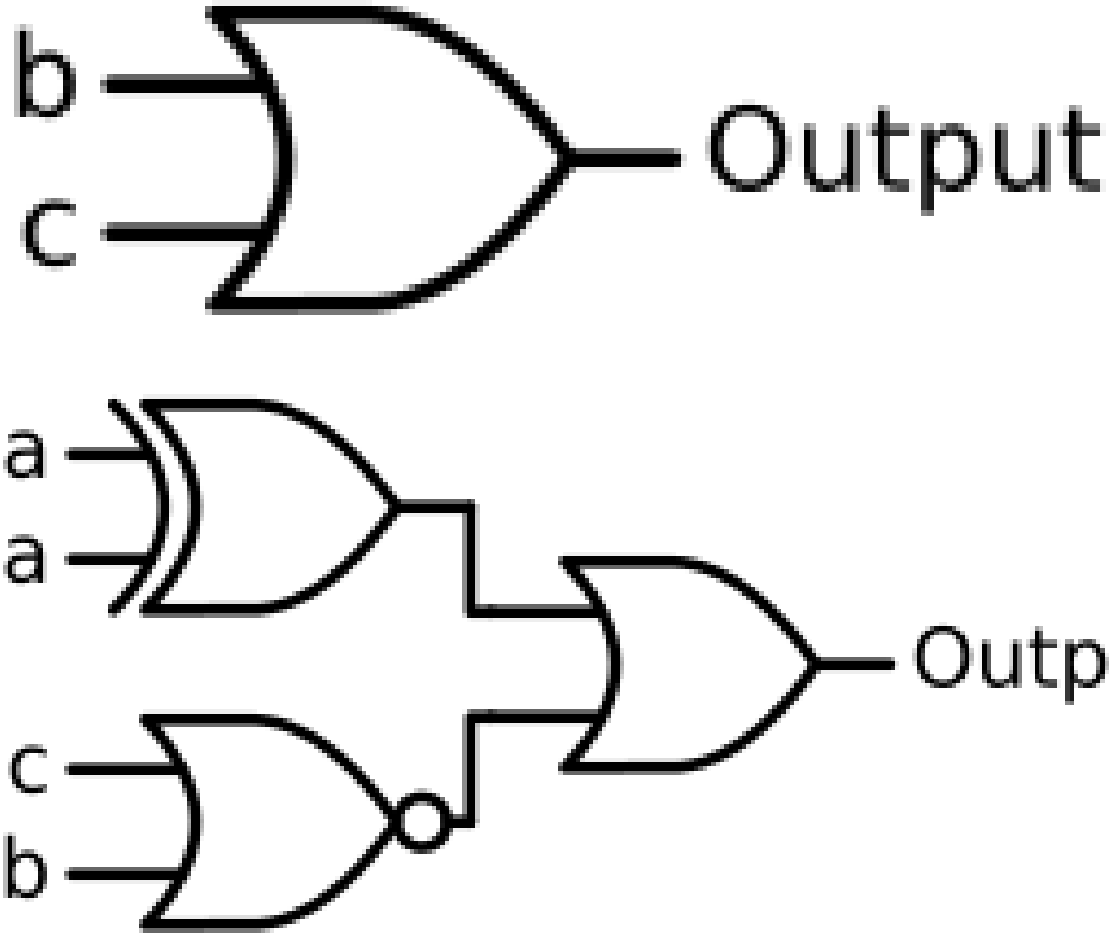
Expression 1: (b or c)

Expression 2: (not ((a xor a) nor (c nor b)))

Options:

1. Yes

2. No



Correct Answer: no

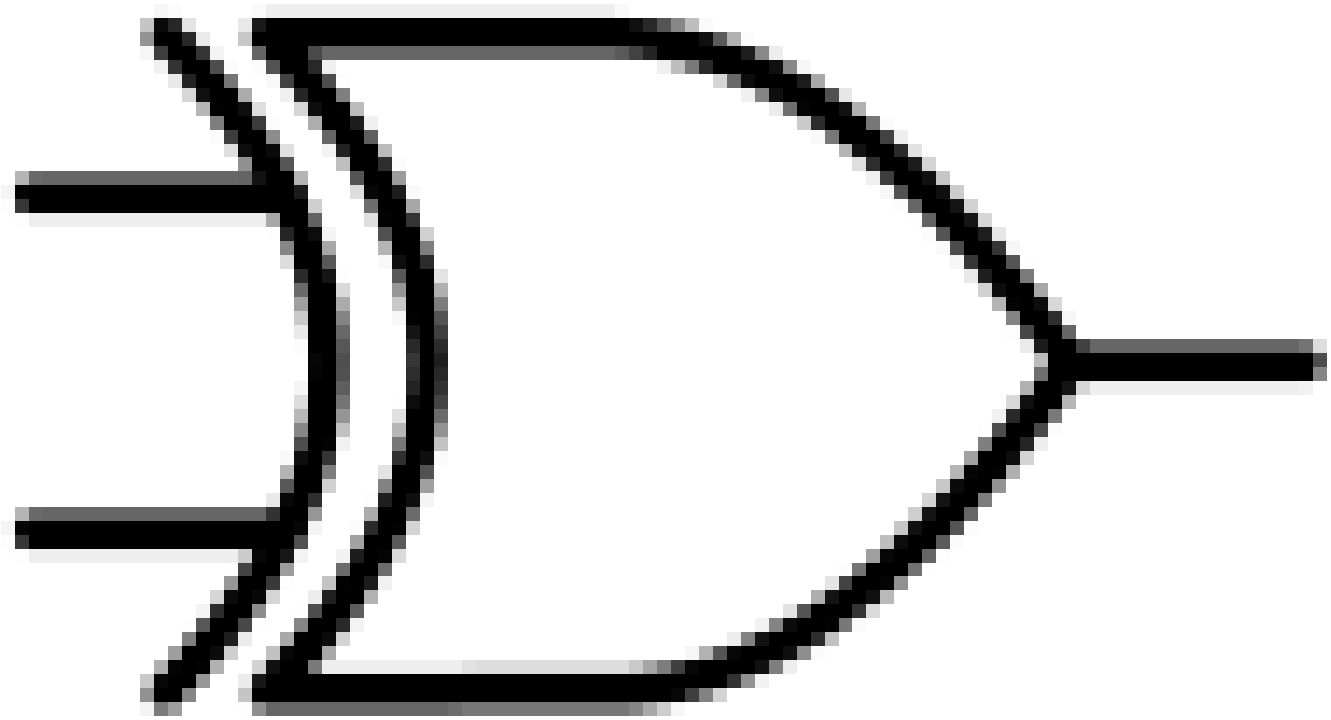
Question 8:

What is the output of the XOR gate with inputs 1, 0?

Options:

1. 1

2. 0



Correct Answer: 1

Question 9:

Are these two circuits equivalent?

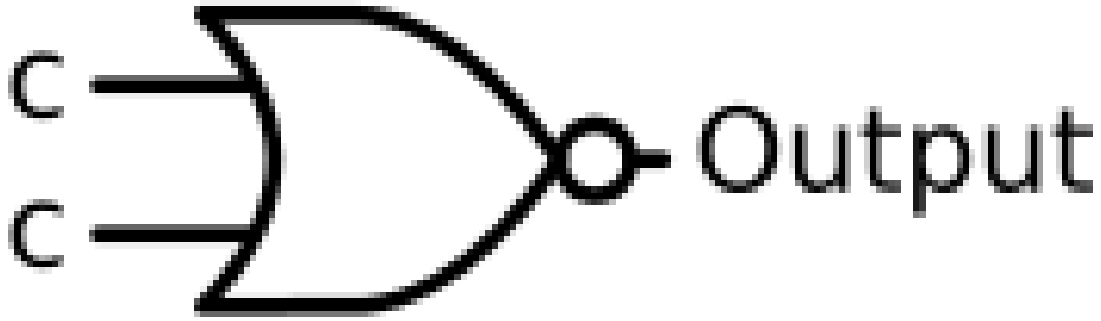
Expression 1: (c nor c)

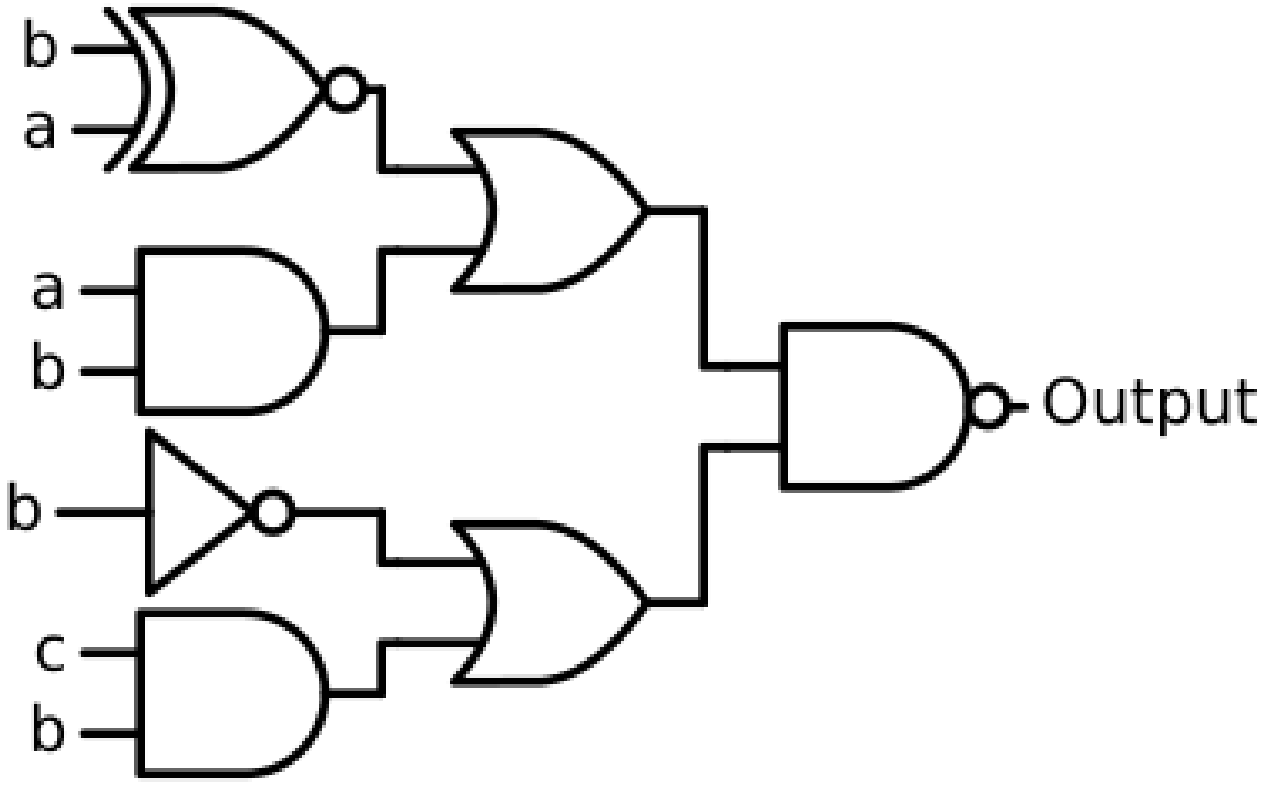
Expression 2: (((b xnor a) or (a and b)) nand ((not b) or (c and b)))

Options:

1. Yes

2. No





Correct Answer: no

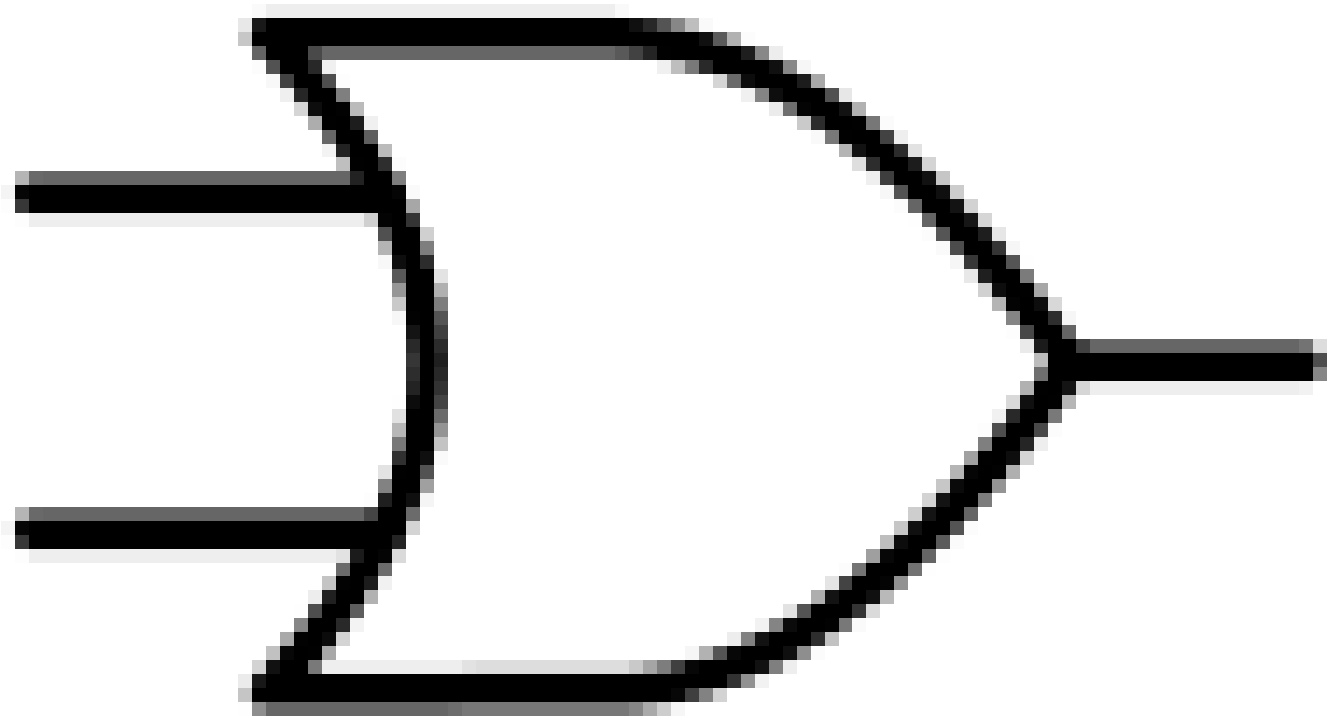
Question 10:

What is the output of the OR gate with inputs 1, 1?

Options:

1. 1

2. 0



Correct Answer: 1