1.

DAG 1



1 point

How many paths are there from D to B?

4

2.

DAG 1



1 point

How many backdoor paths are there from G to B?

1

3.

DAG 1



1 point

Is G independent from D, given E?



Voc



No

4.

1 point





Is D independent from G?

- Yes
- No

5.

DAG 1

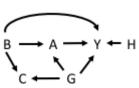


How many parents does B have?

- $\bigcirc$
- $\bigcirc$  :
- 2
- $\bigcirc$  :

6.

DAG 2



(Assume we are interested in the causal effect of A on Y.)

How many backdoor paths are there from A to Y?

4

1 point

1 point

**7.** 

1 point

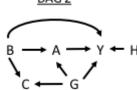
$$\begin{array}{c}
DAG 2 \\
B \longrightarrow A \longrightarrow Y \leftarrow H \\
C \longleftarrow G
\end{array}$$

(Assume we are interested in the causal effect of A on Y.)

How many unblocked backdoor paths are there from A to Y?

2

8. <u>DAG 2</u> 1 point



(Assume we are interested in the causal effect of A on Y.)

Conditioning on C creates a link between which two nodes?

- B and G
- G and H
- O C and A

9. <u>DAG 2</u> 1 point

$$B \longrightarrow A \longrightarrow Y \leftarrow H$$
 $C \longleftarrow G$ 

(Assume we are interested in the causal effect of A on Y.)

Does conditioning on {G,B} satisfy the backdoor path criterion?



Yes

O No

10.

 $\begin{array}{c}
DAG 2 \\
\hline
B \longrightarrow A \longrightarrow Y \longleftarrow H
\end{array}$ 

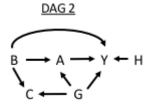
1 point

(Assume we are interested in the causal effect of A on Y.)

The set of variables to control for based on the disjunctive cause criterion is:

- (G,H)
- (C,B,G,H)
- (G,B)
- {B,G,H}

11.



1 point

(Assume we are interested in the causal effect of A on Y.)

Does the set  $\{C,B\}$  satisfy the backdoor path criterion?

- O Yes
- No

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I, **Jonathan Maxion Presto**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

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