

### <u>Course</u> > <u>Lesson 1: Causal DAGs</u> > <u>6. D-separation</u> > Questions

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# Questions

#1

1/1 point (graded)

Increasing the sample size could help us eliminate chance associations, but structural associations would still remain.





#### **Explanation**

Chance associations become smaller with increased sample size. In contrast, structural associations remain with increased sample size.

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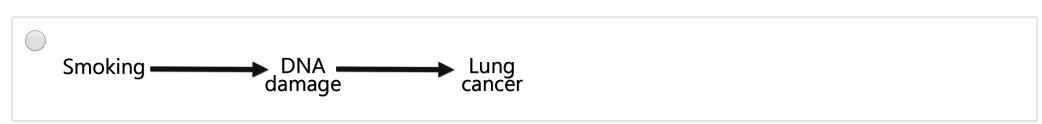
You have used 1 of 1 attempt

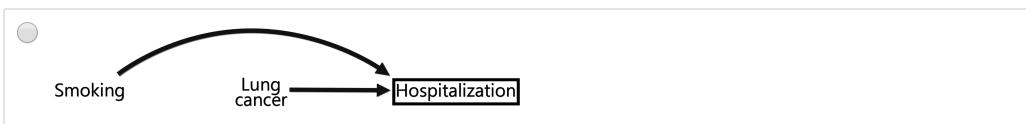
Answers are displayed within the problem

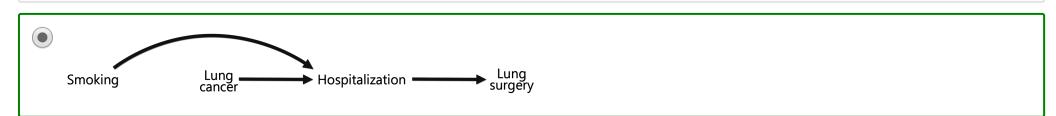
#2

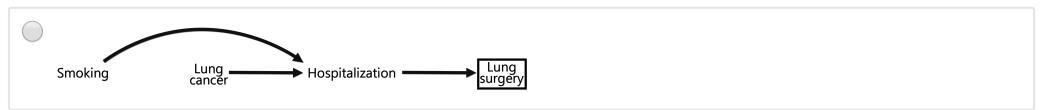
1/1 point (graded)

In which of the settings below are variables smoking and lung cancer d-separated?











# **Explanation**

In DAG (c), smoking and lung cancer are d-separated because there is a collider, hospitalization. In DAG (a), they are not d-separated because there is a path from smoking to DNA damage to lung cancer. In DAG (b), we are conditioning on a collider, hospitalization, which opens up the path from smoking to hospitalization to lung cancer. In DAG (d), we are conditioning on a variable that is downstream of a

collider, which also opens up the path from smoking to hospitalization to lung cancer.

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You have used 1 of 3 attempts

• Answers are displayed within the problem

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