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# PROBABILITY AND TWO-WAY TABLES

## A QUESTION ABOUT BREAST CANCER

	Test Positive	Test Negative	Total
Have BC			
Don't have BC			
Total			

## SUPERPOWERS

	Female	Male	Total
Super Strength			
Fly			
Telepathy			
Freeze Time			
Invisibility			
Total			

## THE TITANIC

In 1912, the Titanic was struck by an iceberg and sank. Tragically, there were not enough lifeboats to accommodate all the passengers. The following table gives information about which adult passengers died and which survived.

	Survived	Died	Total
First Class	197	122	319
Second Class	94	167	261
Third Class	151	476	627
Total	442	765	1207

1. What percent of all adult passengers survived?
2. What percent of all first class adult passengers survived?
3. Is being a first class adult passenger independent of survival? Explain.
4. Choose an adult passenger at random. What is the probability that this passenger survived?
5. Given that an adult third class passenger is chosen at random, what is the probability that this passenger survived?
6. Are the events being an adult third class passenger and surviving independent? Explain.