ANY QUESTIONS WITH LAST NIGHT'S HOMEWORK?????

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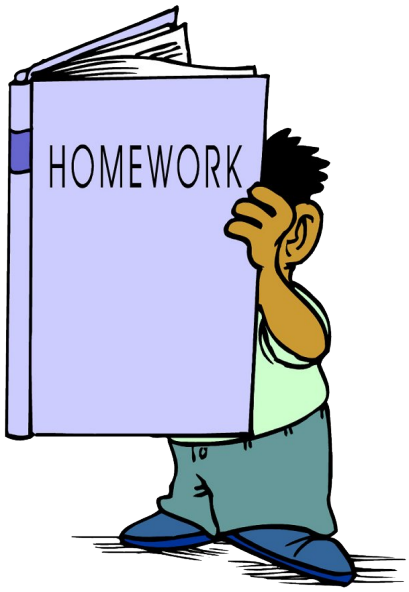
Questions :
3,4, 5,7,9,10



3. Indicate whether each decision is based on theoretical probability, experimental probability, or subjective judgment. Explain how you know.

a) The last two times Andrei won a prize at a coffee shop, he ordered a medium hot chocolate. Andrei never won when he ordered a large hot chocolate, so today he orders a medium hot chocolate.

a) Experimental probability; decision is based on Andrei's past experience.

b) Instead of buying her own lottery ticket, Martha pools her money with the people at work to buy more tickets and increase her chances of winning.

b) Theoretical probability; the more tickets you buy the greater your chance of winning.

c) Anita boards the last car of a train because, in the past, the last car always had available seats.

c) Experimental probability; decision is based on Anita's past experience.

d) Doug will not travel by airplane even though experts say it is safer to fly than drive.

d) Subjective judgment; decision is based on Doug's feelings.

4. What assumptions is each person making?

a) Based on past math quizzes, Claudia says she has a 90% chance of getting a perfect score on her next math quiz.

a) Claudia will continue to perform at the same level and the next math quiz will have the same difficulty.

b) Six times out of ten, Omar gets stuck in traffic when he leaves work. So, he calculates that his chances for getting stuck in traffic today after work are 60%.

b) Omar will leave work at the same time and the traffic patterns will be the same every day.

5. The weather forecast is 70% chance of rain. Winona had planned to go canoeing. Explain how the decision she makes may be based either on probability or on subjective judgment.

Theoretical

If Winona doesn't go canoeing, her decision will be based on probability (it is likely that it will rain). If she does go, her decision will be based on subjective judgment (the feeling that it will not rain).

7. One year, the probability of *not* recovering a stolen vehicle in Montreal was 44%. How could politicians use this fact to argue that:

a) more money should be allotted to searching for stolen vehicles

a) More money should be spent to increase the probability of recovering a stolen vehicle.

b) more money should not be allotted, and instead should go to different causes

b) Because the probability of recovering a stolen vehicle is so low, there are better ways of spending money than on solving this problem.

9. Kathryn read this headline:

Kathryn says that if she polled the next 10 people she passed on the street, 7 of them would be voting for Choo.

a) What assumption is Kathryn making?

a) Kathryn assumes that the next 10 people she meets are a fair representation of the community.

b) Explain what the effect might be if the assumption were not true.

b) The next 10 people may favour one candidate very strongly over the other, making the number of those who support Choo greater than or less than 7.

10. A DNA match was found between a blood sample and a suspect. A forensic scientist testifies that there is a 1 in 7000 chance the blood sample is from someone other than the suspect. Describe how two lawyers could use this statistic to support different positions.

Since there is such a small chance the blood was not the suspect's, it is very likely the suspect committed the crime. There is a chance the blood belongs to someone else, so the jury should not convict a possibly innocent man.