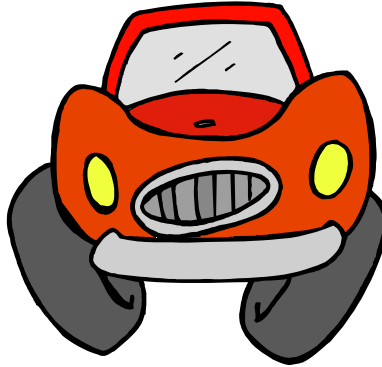


# Car Trouble

The local garage employs two mechanics, Axle and Sparky, but you never know which mechanic will be working on your car. Your neighborhood consumer club has found that Axle does twice as many jobs as Sparky, Axle does a good job three out of four times, and Sparky does a good job only two out of five times.



1. Draw a tree diagram or an area model to represent the given problem here.

2. If you plan to take your car in for repairs,

a. what is the probability that a good job will be done?

b. what is the probability that Sparky worked on your car if a good job is done?

c. what is the probability that a good job is done if Axle worked on your car?

## More Car Trouble



The local garage employs three mechanics, Axle, Sparky, and Earl but you never know which mechanic will be working on your car. Your neighborhood consumer club has found that Axle does 40% of the jobs, Sparky does 35%, and Earl does 25%. Axle does a good job nine out of ten times, Sparky does a good job eight out of ten times, and Earl does a good job only 64% of the time. If you plan to take your car in for repairs,

1. what is the probability that a good job will be done?
2. what is the probability that Sparky worked on your car if a good job is done?
3. what is the probability that a good job is done if Axle worked on your car?