



Six friends enter a race. Use the following cards to determine who is most likely to win the race and with what probability. In what sequence would you expect the runners to finish the race?

**C** is twice as likely to win as **B**.

The probability that **A** wins is equal to the sum of the probabilities that **F** or **C** win.

Two runners have a better than evens chance of winning.

Two runners have an equal but not very good chance of winning.

The probability that **C** wins is half the combined probability that **D** or **E** win.

The probability that **D** wins is half that of each of two other runners.

The chance that **C** wins is less likely than two other runners.

Runners **B**, **F** and **A** have a combined probability equal to that of certainty.

The least likely winner has a probability 0.6 smaller than the most likely winner.

Runner **A** is three times more likely to win than runner **B**.

Runner **F** has a probability of winning that is  $\frac{1}{3}$  that of runner **A**.

Each runner's probability of winning is a multiple of 0.1.

Runners **A** and **C** have a combined probability of 1.

Only one runner has a chance of winning greater than  $\frac{2}{3}$ .

### EXTENSION

What is the smallest number of cards that you need to solve the problem? Which cards do you need?