

Aim: How do we find the probability of multiple events?

Do Now:

1. The probability that the Mets win their first game is $\frac{1}{3}$. The probability that the Mets win their second game is $\frac{3}{7}$. What is the probability that the Mets win both games?

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2. Bob and Laquisha have volunteered to serve on the Junior Prom Committee. The names of twenty volunteers, including Bob and Laquisha, are put into a bowl. If two names are randomly drawn from the bowl without replacement, what is the probability that Bob's name will be drawn first and Laquisha's name will be drawn second?

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| <ol style="list-style-type: none">3. A coin is tossed and a number cube is rolled. What is the probability that the coin shows heads and the number cube shows an odd number? | <ol style="list-style-type: none">4. Three fair coins are tossed. What is the probability that two heads and one tail appear? |
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5. A student council has seven officers, of which five are girls and two are boys. If two officers are chosen at random to attend a meeting with the principal, what is the probability that the first officer chosen is a girl and the second is a boy?
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6. Selena and Tracey play on a softball team. Selena has 8 hits out of 20 times at bat, and Tracey has 6 hits out of 16 times at bat. Based on their past performance, what is the probability that both girls will get a hit next time at bat?
7. Mr. Yee has 10 boys and 15 girls in his mathematics class. If he chooses two students at random to work on the blackboard, what is the probability that both students chosen are girls?

8. Throughout history, many people have contributed to the development of mathematics. These mathematicians include Pythagoras, Euclid, Hypatia, Euler, Einstein, Agnesi, Fibonacci, and Pascal. What is the probability that a mathematician's name selected at random from those listed will start with either the letter *E* or the letter *A*?
9. The probability of rain on Monday is 0.1. The probability of rain on Tuesday is 0.8. What is the probability of rain on both Monday and Tuesday?

10. The probability that it will snow on Sunday is $\frac{3}{5}$. The probability that it will snow on both Sunday and Monday is $\frac{3}{10}$. What is the probability that it will snow on Monday, if it snowed on Sunday?
11. The probability that Jinelle's bus is on time is $\frac{2}{3}$, and the probability that Mr. Corney is driving the bus is $\frac{4}{5}$. What is the probability that on any given day Jinelle's bus is on time and Mr. Corney is the driver?