

# Conditioning Practice

Red die 6  
conditioned on  
sum 7

Red die 6  
conditioned on  
sum 9

Sum 7 conditioned  
on red die 6

|      | D2=1  | D2=2  | D2=3  | D2=4  | D2=5  | D2=6  |
|------|-------|-------|-------|-------|-------|-------|
| D1=1 | (1,1) | (1,2) | (1,3) | (1,4) | (1,5) | (1,6) |
| D1=2 | (2,1) | (2,2) | (2,3) | (2,4) | (2,5) | (2,6) |
| D1=3 | (3,1) | (3,2) | (3,3) | (3,4) | (3,5) | (3,6) |
| D1=4 | (4,1) | (4,2) | (4,3) | (4,4) | (4,5) | (4,6) |
| D1=5 | (5,1) | (5,2) | (5,3) | (5,4) | (5,5) | (5,6) |
| D1=6 | (6,1) | (6,2) | (6,3) | (6,4) | (6,5) | (6,6) |

Fill out the poll everywhere so  
Kushal knows how long to explain  
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# Willy Wonka

Willy Wonka has placed golden tickets on 0.1% of his Wonka Bars.

If the bar you weigh **does** have a golden ticket, the scale will alert you 99.9% of the time.

If the bar you weigh does not have a golden ticket, the scale will (falsely) alert you only 1% of the time.

If you pick up a bar and it alerts, what is the probability you have a golden ticket?

Which of these is closest to the right answer?

A. 0.1%

B. 10%

C. 50%

D. 90%

E. 99%

F. 99.9%

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