

Problem Wk.10.3.4: Equivalence

Which of the following expressions are equivalent to $P(A=0 \mid B=0)$?

These questions cannot be checked without giving them away. Think about them and do your best. Don't be frustrated if you get some wrong; just try to convince yourself of the reason.

1. $P(A=0) / P(B=0)$ ☐
2. $P(B=0 \mid A=0)$ ☐
3. $P(B=0 \mid A=0) P(A=0)$ ☐
4. $P(B=0 \mid A=0)P(A=0) / P(B=0)$ ☐
5. $P(B=0 \mid A=0)P(A=0) / (P(A=0, B=0) + P(A=1, B=0))$ ☐
6. $P(B=0 \mid A=0)P(A=0) / (P(B=0 \mid A=0)P(A=0) + P(B=0 \mid A=1)P(A=1))$ ☐
7. $P(A=0, B=0) / P(A=0)$ ☐
8. $P(A=0, B=0) / P(B=0)$ ☐
9. $P(A=0, B=0) / (P(B=0, A=1) + P(B=0, A=0))$ ☐

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