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. $P(A=0,B=0) / (P(B=0,A=1) + P(B=0,A=0))$