Handwritten HW 25

Page 303

21. Justify the statement. The matrices are square.

If A is invertible and similar to B, then B is invertible and A^{-1} is similar to B^{-1}. [*Hint:* $P^{-1}AP = B$ for some invertible P. Explain why B is invertible. Then find an invertible Q such that $Q^{-1}A^{-1}Q = B^{-1}$.]

Solution:

22. Justify the statement. The matrices are square.

If A is similar to B, then A^2 is similar to B^2.

Solution: