DYNAMICAL SYSTEMS, MATH 117, HW#4

Exercises 4.17, 4.18, 4.19, 5.12, and the following problem:

Problem 1.

Suppose that $A, B : \mathbb{R}^2 \to \mathbb{R}^2$ are hyperbolic linear maps.

a) Is it true that A^2 must also be hyperbolic?

b) Is it true that AB must also be hyperbolic?

Explain your answers.