
Exercise 1 For matrices A , B and C . True or False? If False, you should come up with a counterexample. If True, can you give a proof?

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

Multiple Choice:

- (i) True
- (ii) False

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

Multiple Choice:

- (i) True
- (ii) False

3. If A^T is similar to B , then A is similar to B^T .

Multiple Choice:

- (i) True
- (ii) False

4. If A is similar to B , and B is similar to C , then A is similar to C .

Multiple Choice:

- (i) True
- (ii) False