Problem 3 Rubric

a) Q: Correct

W: Arithmetic/matrix multiplication error: (−1)

E: Eigenvalues ~~correct~~ and eigenvectors correct, but diagonal matrix is incorrect (This applies even if it's b/c of a math error): (−1.5)

R: Eigenvalues correct, but no attempt at writing the diagonal matrix; & or eigenvalues wrong b/c of incorrect characteristic equation: (−3)

N: Eigenvalues incorrect, no attempt at diagonalization (−5)

T: Attempted (usually no eigenvalues, eigenvectors) (−7)

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b) Q: Correct

W: Arithmetic/matrix multiplication error: (−0.5)

E: Everything set up correctly, but matrix multiplication not evaluated: (−2)

R: C or C^{-1} incorrect or missing ~~incorrect~~ ~~incorrect~~: (−2)

S: Both E and R categories (most commonly, C^{-1} not calculated and matrix mult. not carried out): (−3)

N: Correctly exponentiated the diagonalized matrix or correctly Taylor expansion: (−5)

Y: Attempted: (−7)

P: Simply exponentiated each element (or equivalent): (−8)