Math 2318 – Linear Algebra ***Exam* 3** ***Review***

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1. Let  be the Euclidean inner product on , and let , , and . Verify the following for the weighted Euclidean inner product
2.  *b) *
3. Which of the following form orthonormal sets?
4.  in 
5. 
6. Use the Gram-Schmidt process to find an orthonormal basis for the subspaces of .
7. 
8. 
9. 
10. 
11. Find the ***QR***-decomposition of

*a*)  *b*) 

1. Determine if the matrix is orthogonal. For those that is orthogonal find the inverse
2.  *b*) 
3. 

***Solution***

1. 
2. 







1. 



1. 

  
