**STA 471 – Regression Analysis**

**Homework #4**

**October 19th, 2023**

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RLM443

We define:

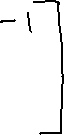
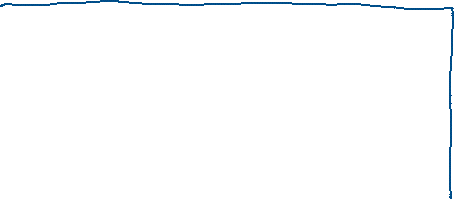
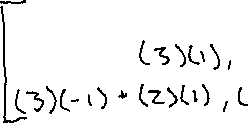
A = , B = , C =

Calculate the matrices below, or say it is impossible to do so, if it is impossible to.

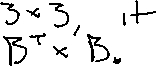
1. B + C



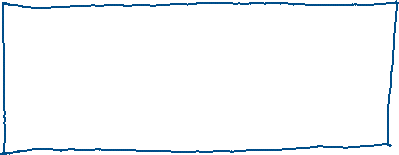
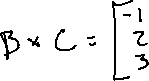
1. BB′



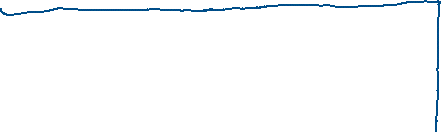
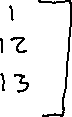
1. A + B′B



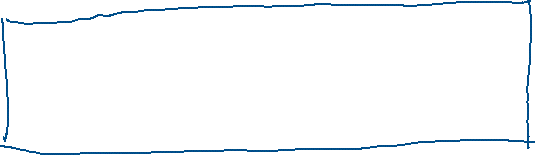
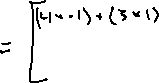
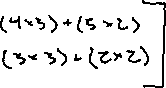
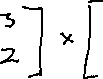
1. BC



1. AA-1BC



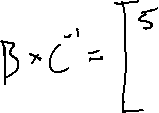
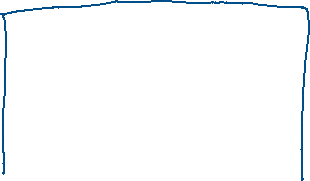
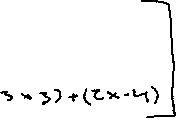
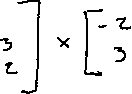
1. CB′



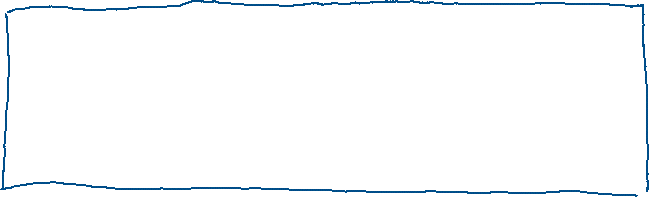
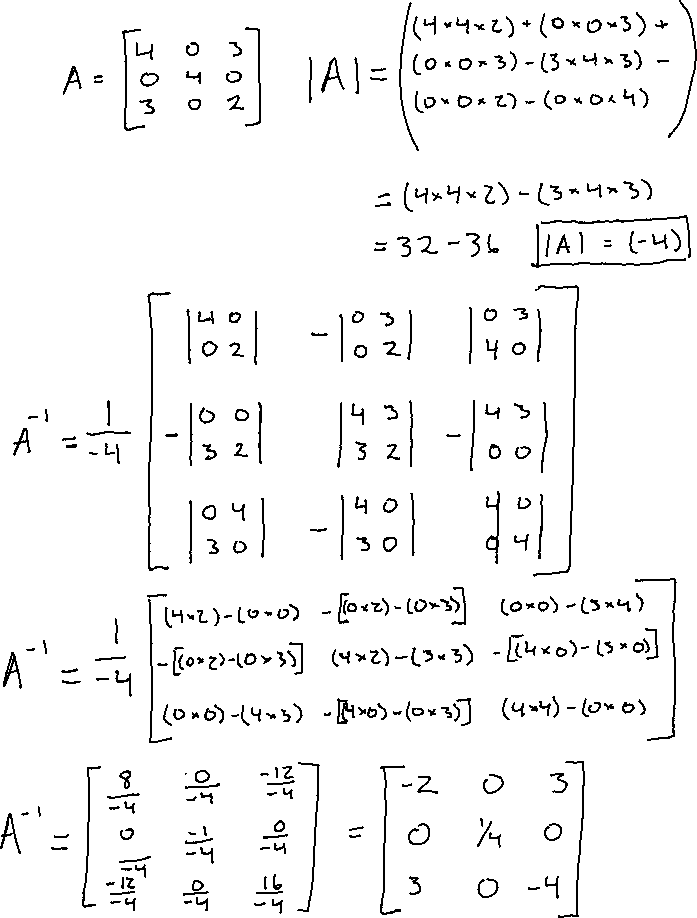
1. CAB



1. BC-1, where C-1 =



1. A-1



1. A′A(A′)-1A-1

