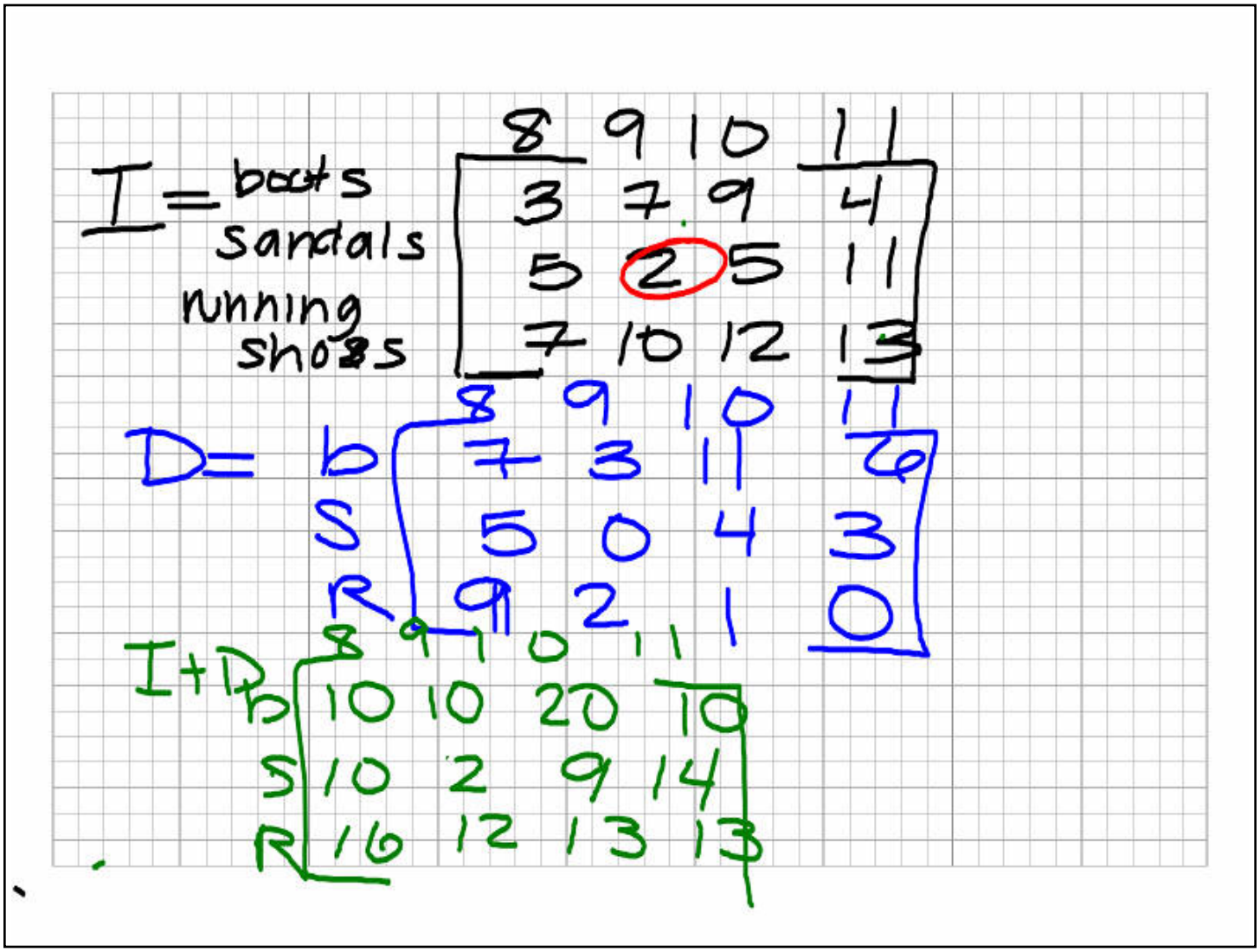
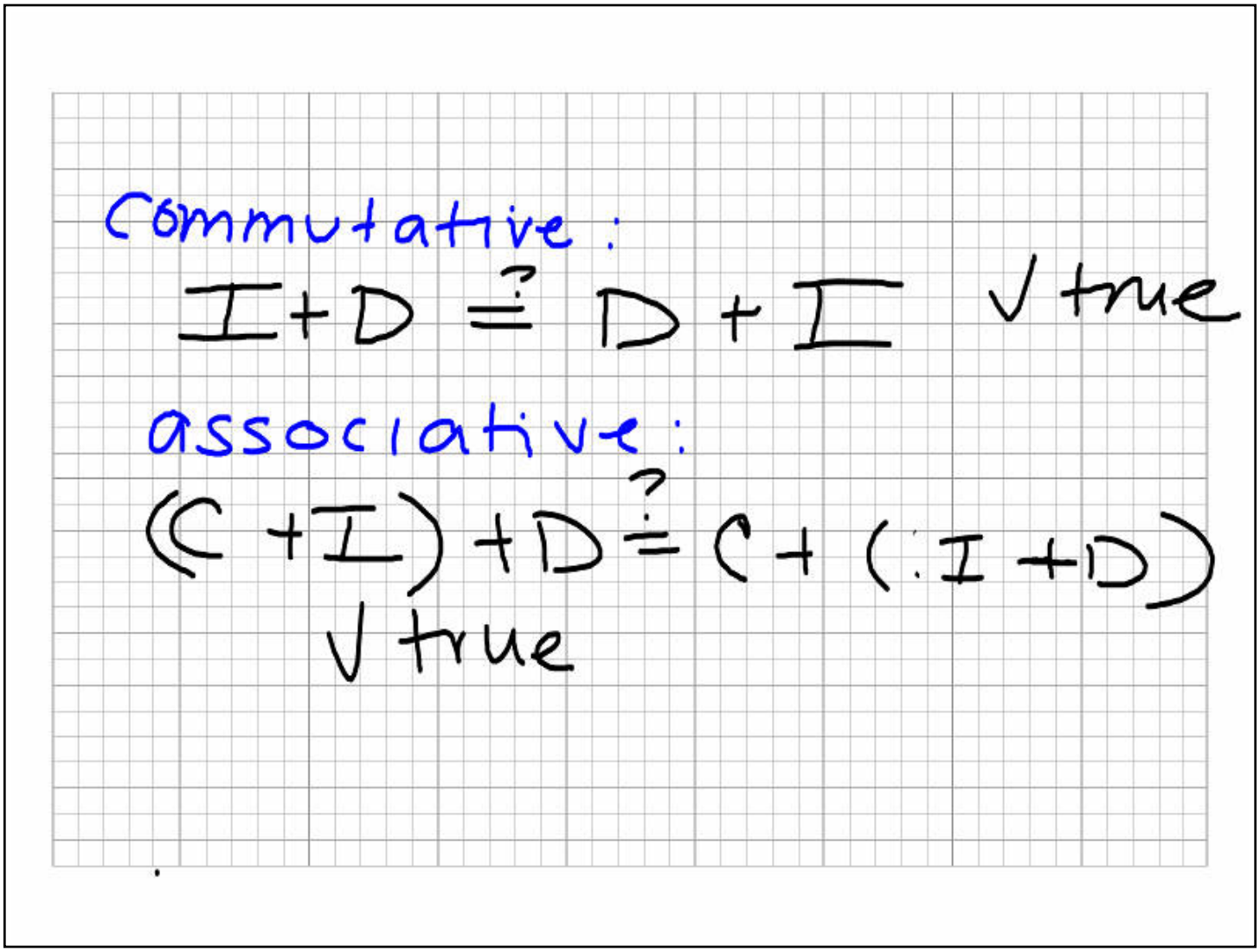
4.2 Matrix Addition

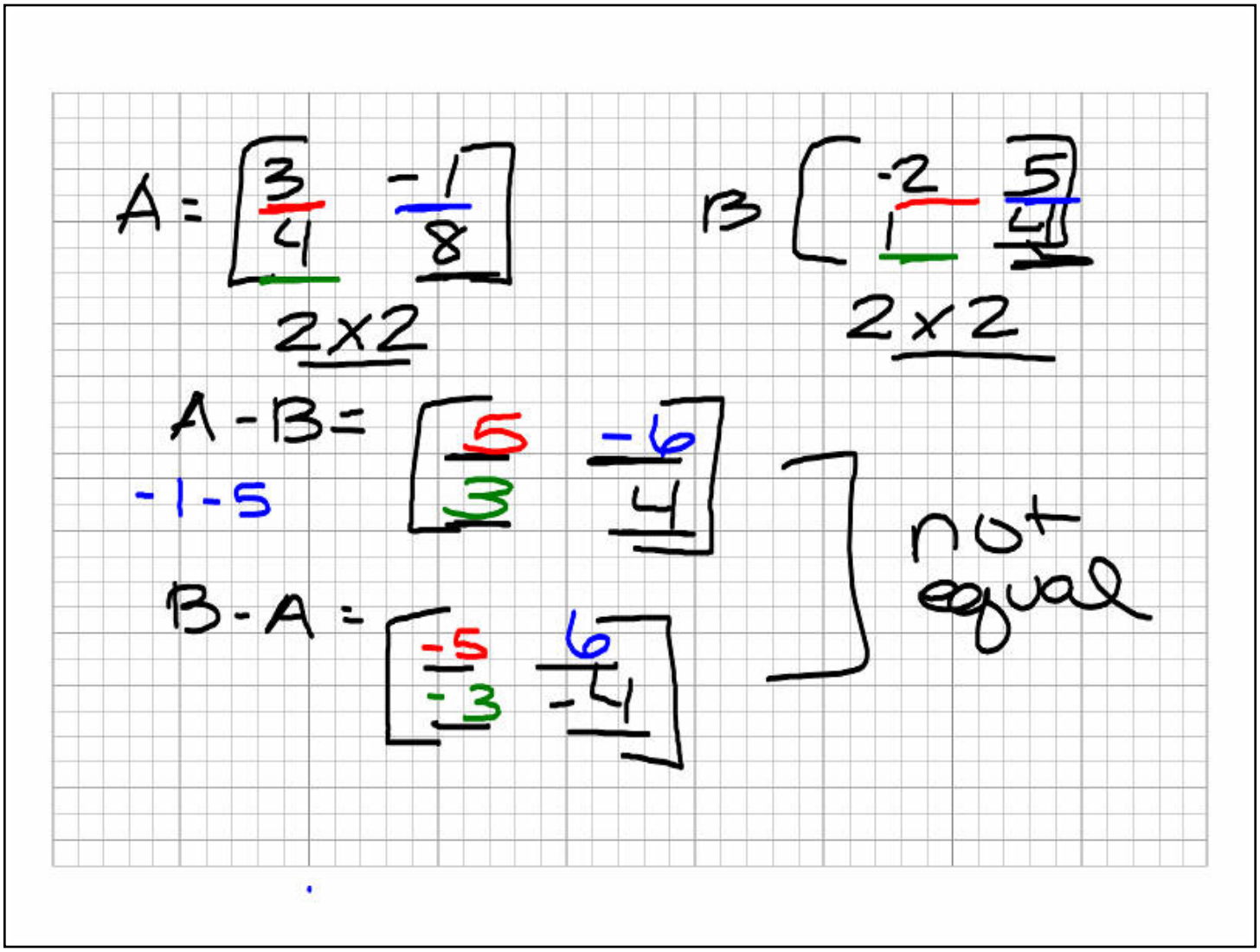
In order to add or subtract matrices, each must have the dimensions.

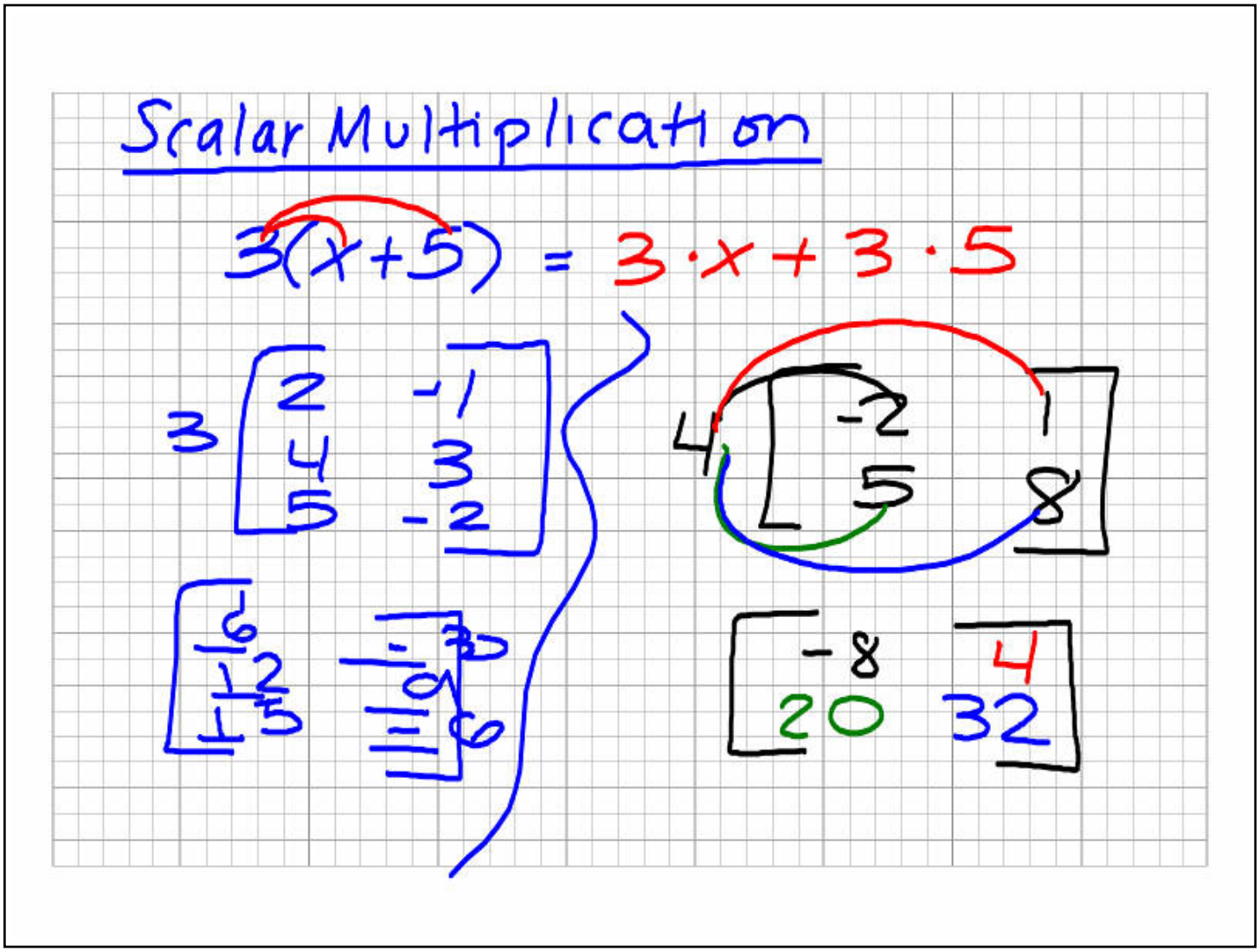
Recall: $R \times C$


I = boots
sandals
running shoes
8 9 10 11
3 7 9 4
5 2 5 11
7 10 12 13
D=
b 7 3 11 6
S 5 0 4 3
R 9 2 1 0
I+D
8 9 10 11
b 10 10 20 10
S 10 2 9 14
R 16 12 13 13


Commutative:
I + D ≟ D + I
√ true
associative:
(C + I) + D ≟ C + (I + D)
√ true

4.2 Red




Scalar Multiplication
3(x+5) = 3·x + 3·5
3
2 -1
4 3
5 -2
6 -3
12 9
15 6
4
-2 1
5 8
-8 4
20 32

4.2 Red