

### Properties of Zero Matrices

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If  $A$  is an  $m \times n$  matrix and  $c$  is a scalar, then the properties below are true.

1.  $A + 0_{mn} = A$
2.  $A + (-A) = 0_{mn}$
3. If  $cA = 0_{mn}$ , then  $c = 0$  or  $A = 0_{mn}$