Solving Cost Problems

A. One night the manager of the Sea Breeze Motel rented 5 singles and 12 doubles for a total of $390. The next night he rented 9 singles and 10 doubles for a total of $412. Find the rental charge for each type of room.

Unknowns: S = single price
D = double price

Equations: 5S + 12D = 390
9S + 10D = 412

B. At Gwen's garage sale, all books were one price, and all magazines were another price. Harriet bought four books and three magazines for $1.45, and June bought two books and five magazines for $1.25. Find the price of a book and of a magazine.

Unknowns: B = book price
M = magazine price

Equations:

C. Tickets for a concert were sold to adults for $3 and to students for $2. If the total receipts were $824 and twice as many adult tickets as student tickets were sold, find how many of each were sold.

[Be careful with this one. Is the equation representing “twice as many adults as students” written 2A = S or A = 2S ?]

Unknowns: S = number of student tickets
A = number of adult tickets

Equations: 3A + 2S = 824
A = 2S