Describe methods you would use to sort the following?:

* Kids in the order of their height, shortest to tallest (during a Physical Education class, for example)

I think the Bubblesort can be efficient here. Since it compares the adjacent items and swaps them if they are in a wrong order.

1 for i = 1 to K.length-1

2 for j = i to 1

3 if K[j+1] < K[j]

4 exchange K[i] with K[i+1]

* A deck of playing cards that has been shuffled by being dropped on the floor.

Here I will use insertion sort.

1 for i=2 to n

2 temp = C[i]

3 j = i-1

4 while j>0 and C[j] > temp

5 C[j+1] = C[j]

6 j = j-1

7 C[i+1] = temp

* A movie shelf (BluRay and DVD discs in a book shelf)

I try to dived the movies into two parts: DVD and BluRay and sort each part alphabetically.

1 for i = 1 to n

2 if M[i] == Drama

3 D = [D M[i]]

4 j = D.length-1

5 while j > 0

6 if D[j+1].name < D[j].name

7 exchange D[j] with D[j+1]

8 j = j-1

9

10 else

11 j = 0

12 elseif M[i] = Comedy

13 C = [C M[i]]

14 k = C.length-1

15 while k > 0

16 if C[k+1].name < C[k].name

17 exchange C[k] with C[k+1]

18 k = k-1

19 else

20 k = 0