

### Charge: many ways

Charge, or cost, depends on age as follows. Those 12 years old or less pay 2 (dollars), those between 13 and 21 inclusive pay 3, those over 21 but 65 or less pay 5, and those over 65 pay 4.

There are at least nine ways to do this, as shown. Actually there are many more ways, find some more. Also, there is an error here somewhere, find it; a hint follows at the end.

1. Nested choices to the left

t	age > 12			f
t	age > 21			f
t	age > 65			f
	Set cost to 4	Set cost to 5	Set cost to 3	Set cost to 2

2. Nested choices to the right

t	age <= 12			f
	t	age <= 21		f
		t	age <= 65	f
	Set cost to 2	Set cost to 3	Set cost to 5	Set cost to 4

3. Symmetric nests: balanced

t	age <= 21			f
t	age <= 12		age <= 65	f
	Set cost to 2	Set cost to 3	Set cost to 5	Set cost to 4

4. Nested choices to the left

t	age <= 65			f
t	age <= 21			f
t	age <= 12			f
	Set cost to 2	Set cost to 3	Set cost to 5	Set cost to 4

5. Nested choices to the right

t	age > 65			f
	t	age > 21		f
		t	age > 12	f
	Set cost to 4	Set cost to 5	Set cost to 3	Set cost to 2

6. Non-Symmetric nests: nasty

t	age <= 65			f
t	age <= 21			f
	t	age <= 12		f
	Set cost to 2	Set cost to 3	Set cost to 5	Set cost to 4

7. Series of Choices

	Set cost to 2			
t	age > 12			f
	Set cost to 3			-
t	age > 21			f
	Set cost to 5			-
t	age > 65			f
	Set cost to 4			-

8. Series of Choices (again)

	Set cost to 4			
t	age <= 65			f
	Set cost to 5			-
t	age <= 21			f
	Set cost to 3			-
t	age <= 12			f
	Set cost to 2			-

9. More Series of Choices

t	age <= 12			f
	Set cost to 2			-
t	21 < age <= 65			f
	Set cost to 5			-
t	12 < age <= 21			f
	Set cost to 3			-
t	age > 65			f
	Set cost to 4			-

Hint: the error is in the middle row; Find it, and fix it.