Problem of the Week

Problem B

Ch-ch-ch-change!

Canada has the following coins in circulation: nickel (5 cents), dime (10 cents), quarter (25 cents), loonie ($1), and toonie ($2). Australia, on the other hand, has coins with value 5 cents, 10 cents, 20 cents, 50 cents, $1, and $2.

a) Using the least number of coins in each case, determine how to obtain the amounts in the left hand column of the table in each currency. Enter the required coins in the second two columns of the table, as shown for the examples 30 cents and 35 cents.

b) For how many amounts did you use a different number of coins in Canadian currency than in Australian currency?

Amount	Canadian $	Australian $
5 cents		
10 cents		
15 cents		
20 cents		
25 cents		
30 cents	$0.25 + 0.05$	$0.20 + 0.10$
35 cents	$0.25 + 0.10$	$0.20 + 0.10 + 0.05$
40 cents		
45 cents		
50 cents		
55 cents		
60 cents		
65 cents		
70 cents		
75 cents		
80 cents		
85 cents		
90 cents		
95 cents		

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