

Question 1: You have three sets of postage stamps: 7-cent stamps, 29-cent stamps and 43-cent stamps. What is the minimum number of stamps that you have to use to have an exact postage of \$3.01?

Question 2: With the same stamps as above, what is the minimum number of stamps that you have to use to have an exact postage of \$3.05?

Now, before you panic too much, I'm going to give you some help. The following table contains the minimum number of stamps to make each postage amount from \$2.21 to \$3.04 (not including \$3.01). This table is a big help!

Postage	Min-Stamps	Postage	Min-Stamps	Postage	Min-Stamps	Postage	Min-Stamps	Postage	Min-Stamps
2.21	11	2.41	19	2.61	9	2.81	9	3.01	?
2.22	6	2.42	14	2.62	22	2.82	10	3.02	8
2.23	7	2.43	9	2.63	17	2.83	25	3.03	9
2.24	8	2.44	6	2.64	12	2.84	20	3.04	10
2.25	27	2.45	7	2.65	7	2.85	15		
2.26	22	2.46	8	2.66	8	2.86	10		
2.27	17	2.47	25	2.67	9	2.87	7		
2.28	12	2.48	20	2.68	10	2.88	8		
2.29	7	2.49	15	2.69	23	2.89	9		
2.30	6	2.50	10	2.70	18	2.90	10		
2.31	7	2.51	7	2.71	13	2.91	21		
2.32	8	2.52	8	2.72	8	2.92	16		
2.33	23	2.53	9	2.73	7	2.93	11		
2.34	18	2.54	26	2.74	8	2.94	8		
2.35	13	2.55	21	2.75	9	2.95	9		
2.36	8	2.56	16	2.76	24	2.96	10		
2.37	7	2.57	11	2.77	19	2.97	11		
2.38	8	2.58	6	2.78	14	2.98	22		
2.39	9	2.59	7	2.79	9	2.99	17		
2.40	24	2.60	8	2.80	8	3.00	12		

Question 1: Think recursively:

- If the last stamp is 7 cents, then you'll solve for \$2.94 and add one. Looking at the table, that's $8+1 = 9$.
- If the last stamp is 29 cents, then you'll solve for \$2.72 and add one. That's $8+1 = 9$.
- If the last stamp is 32 cents, then you'll solve for \$2.58 and add one. That's $6+1 = 7$.
- The answer is the minimum of these: 7.

Question 2: Same process:

- $\$3.05 - \$0.07 = \$2.98$. The table says 22 stamps to get \$2.98, so this makes 23 stamps.
 - $\$3.05 - \$0.29 = \$2.76$. The table says 24 stamps to get \$2.76, so this makes 25 stamps.
 - $\$3.05 - \$0.43 = \$2.62$. The table says 22 stamps to get \$2.62, so this makes 23 stamps.
 - The answer is the minimum of these: 23.
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