

## \* Integer Break

$$10 \rightarrow 3 + 3 + 2 + 2$$

$\underbrace{\quad}_9 \quad \underbrace{\quad}_4 = 36$

$$2 \rightarrow 1 + 1 = 1$$

1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	6	7	12	18	27
		2	3	4	6	7	12	18	27
			2	3	4	6	7	12	18
				2	3	4	6	7	12
					2	3	4	6	7
						2	3	4	6
							2	3	4
								2	3
									2

for other calculations

dp solution

\* Here we have to give priority to 3s over 2s

$$2+2+2 < 3+3$$

$$8 < 9$$

No. ....

Date. ....

$$2+2 > 3+1$$

$$4 > 3$$

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If

$$n \% 3 = 0 \rightarrow 3^{n/3}$$

$$n \% 3 = 1 \rightarrow 4 \times 3^{(n-1)/3}$$

$$\text{else } 2 \times 3^{n/3}$$