#9. $M(h) = M_0 (0.79)^{\frac{h}{3}}$ ← $\frac{1}{3}$ ← amount of drugs in body reduces every 3 hours

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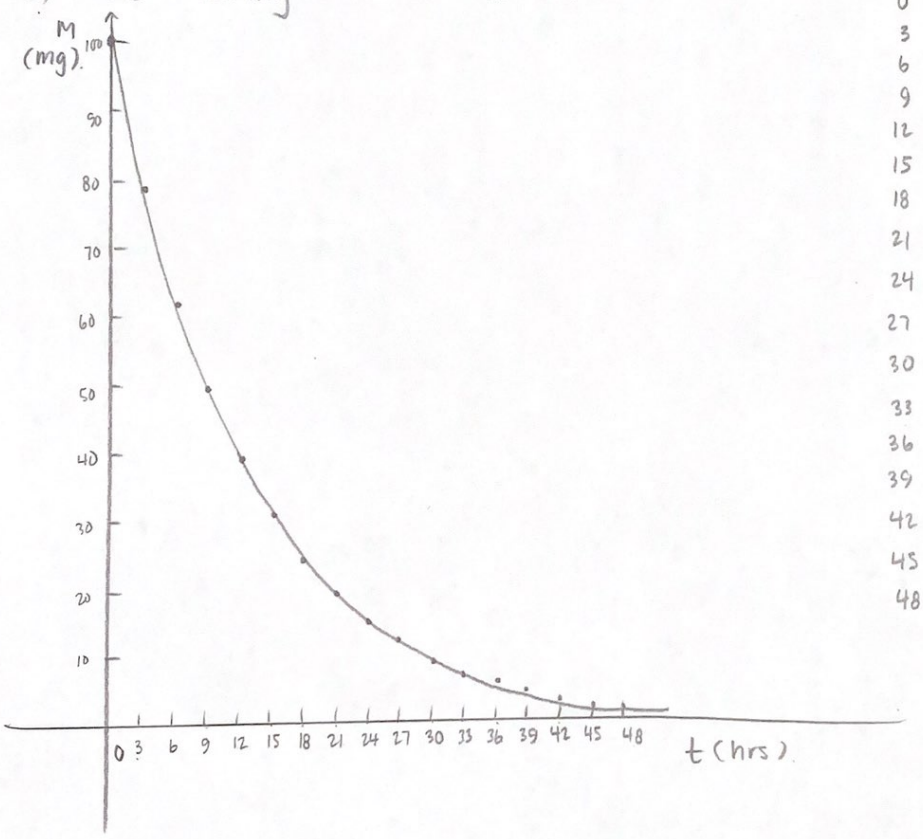
↑ 0.79 rate of change

a) ☆ Amount of drugs drops by 21% every 3 hours.

b) $M_0 = 100$ mg $\quad 0 \rightarrow 48$ hrs.

h	M(h)
0	100
3	79
6	62.41
9	49.304
12	38.95
15	30.771
18	24.309
21	19.204
24	15.181
27	11.985
30	9.4683
33	7.4799
36	5.9092
39	4.6682
42	3.6879
45	2.9134
48	2.3016



c) M-int ⟶ initial dose (100 mg)

d) Domain (time must be positive) $\{t \mid t \geq 0, t \in \mathbb{R}\}$

Range (can only go as high as 100) $\{M \mid 0 < M \leq 100, M \in \mathbb{R}\}$

↑ initial dose