Pg 1

① $r \leq 5$

(A) 

$V = 424.12$

$V = \pi r^2 \cdot h$

$V = \pi(5)^2 \cdot 15$

$V = 1178.1$

It would take a radius less than 5 to make $V = 424.12$

True

(B) 

$V = 565.49$

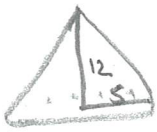
$V = \pi \cdot r^2 \cdot h$

$V = \pi 5^2 \cdot 5$

$V = 392.7$

It would take a radius greater than 5 to make $V = 565.49$

False

(C) 

$V = 201.06$

$V = \frac{1}{3} \pi r^2 \cdot h$

$V = \frac{1}{3} \pi 5^2 \cdot 12$

$V = 314.16$

It would take a radius Less than 5 to make $V = 201.06$

True

(D) 

$V = 254.47$

$V = \frac{1}{3} \pi r^2 \cdot h$

$V = \frac{1}{3} \pi (5)^2 \cdot 12$

$V = 314.16$

It would take a radius Less than 5 to make $V = 254.47$

True

② $|x - 250| \leq .08$ means amount must be between 249.2 → 250.8 (ie .08 Above + below 250)

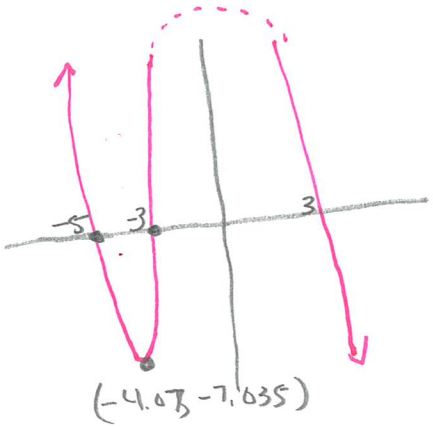
(A) FALSE can't be more than 250.8

(B) TRUE $250.8 - 249.2 = 1.6$

(C) FALSE 249.2 is minimum

(D) TRUE 249.55 is between 249.2 + 250.8

③ graph in desmos + draw graph



Take your time + graph
And draw

Ⓐ False As x goes left ←
Y goes up ↑ (not down)

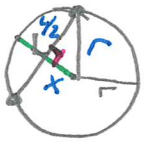
Ⓑ True As x goes right →
Y goes down ↓

Ⓒ True <we read from right to left.>
Y decreases where it says (goes down)

Ⓓ True There is a relative minimum there

④ Draw any described pictures

Always Try to make rt Δ + use $a^2+b^2=c^2$



$a^2+b^2=c^2$

$\left(\frac{L}{2}\right)^2 + x^2 = r^2$

$-x^2 \quad -x^2$

$\frac{L^2}{4} = r^2 - x^2$

$\sqrt{L^2} = \sqrt{4(r^2-x^2)}$

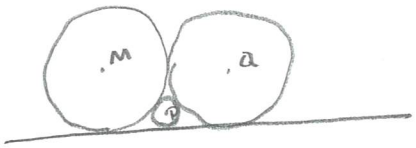
$L = 2\sqrt{r^2-x^2}$

Ⓒ

Pro tip If it asks for distance, you will subtract.
(B + D were wrong)

⑤ Draw + guess with purpose (hand measure)

It takes 4 circle P's to make it to the top of circle M.



Ⓑ 4:1