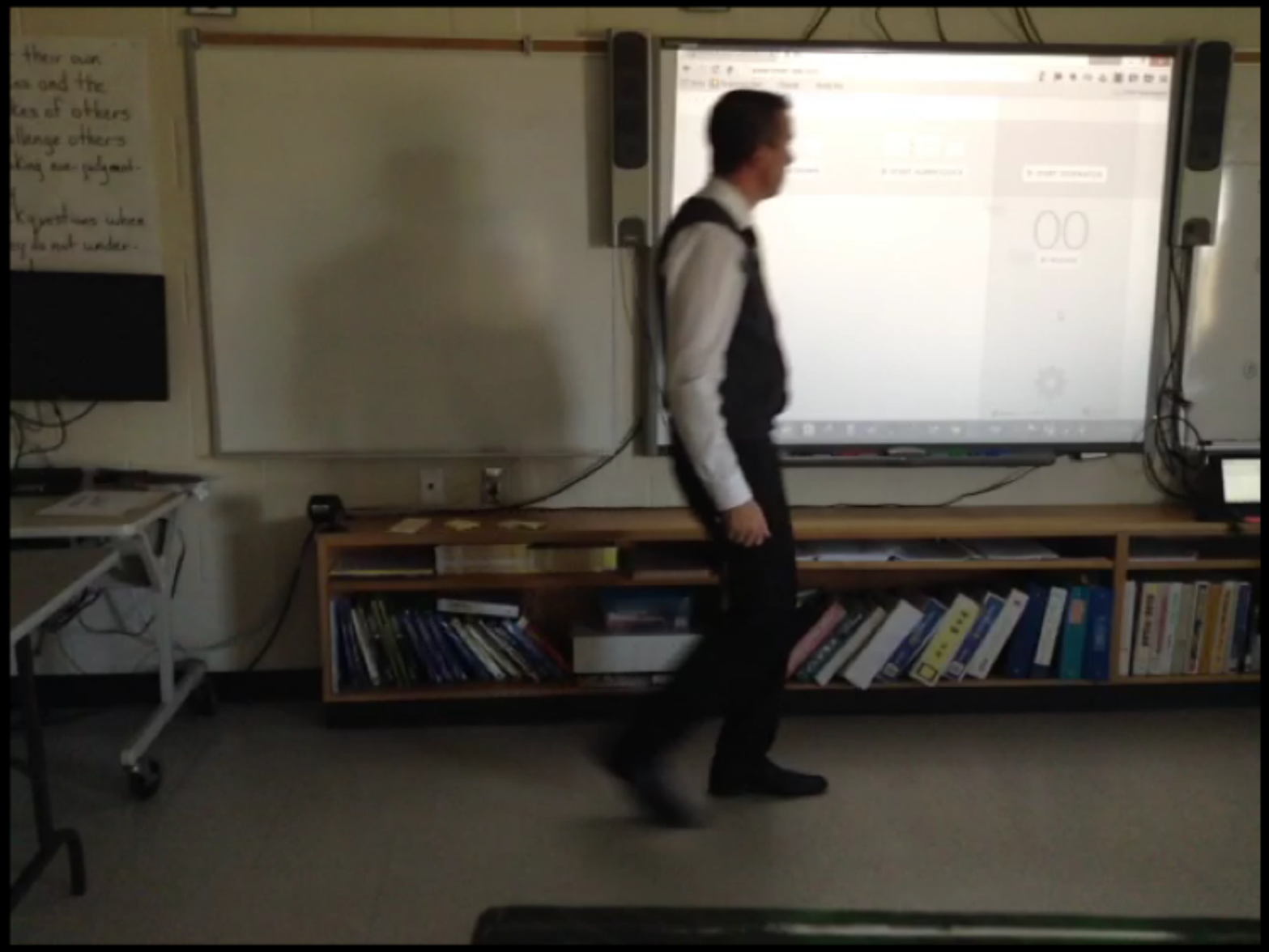
Case 1: What's the rate of change?



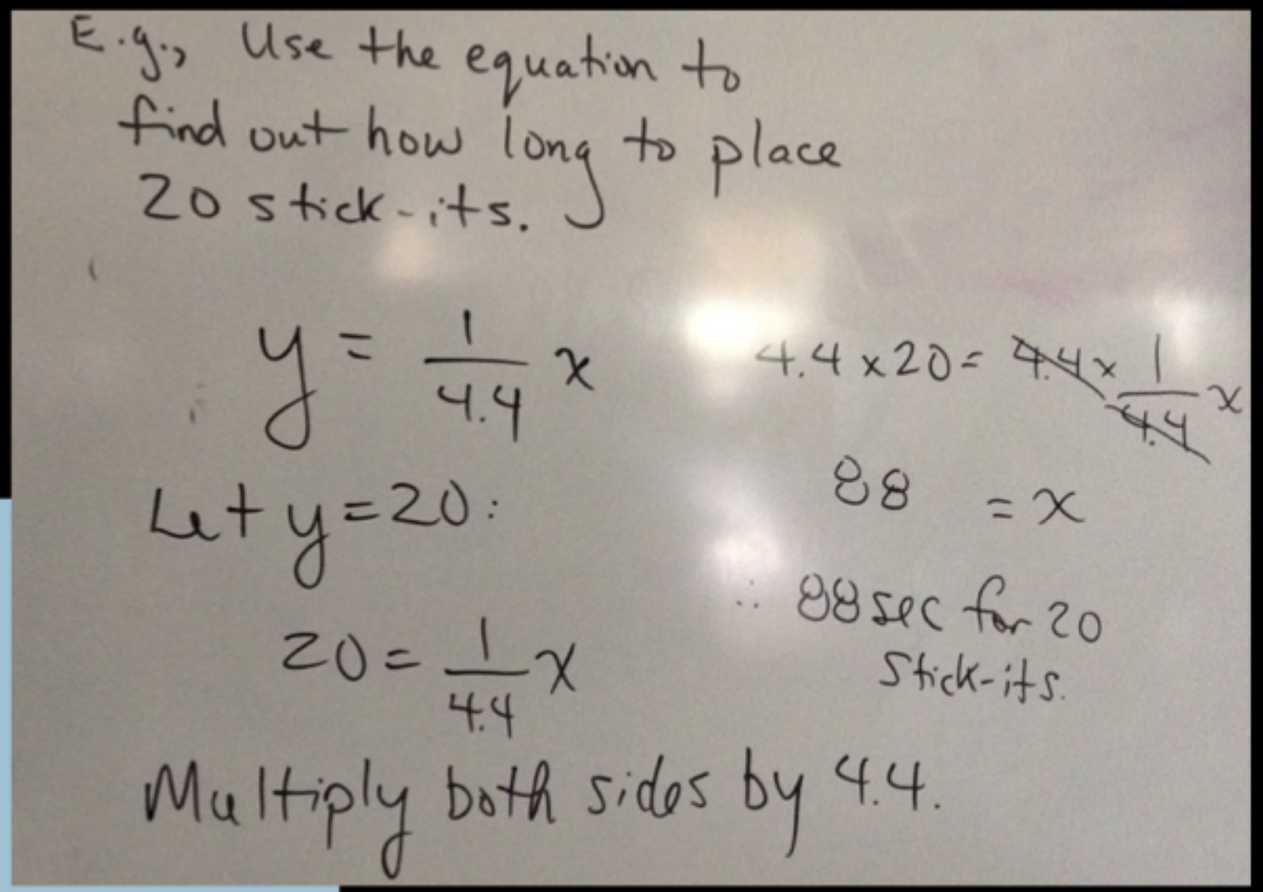
Your estimate?

Actually?

Equation that relates the number of stickies, y, to the time taken to put them up, x? (Starting with zero stickies)

y = rate of change * x

y = (1/4.4)x

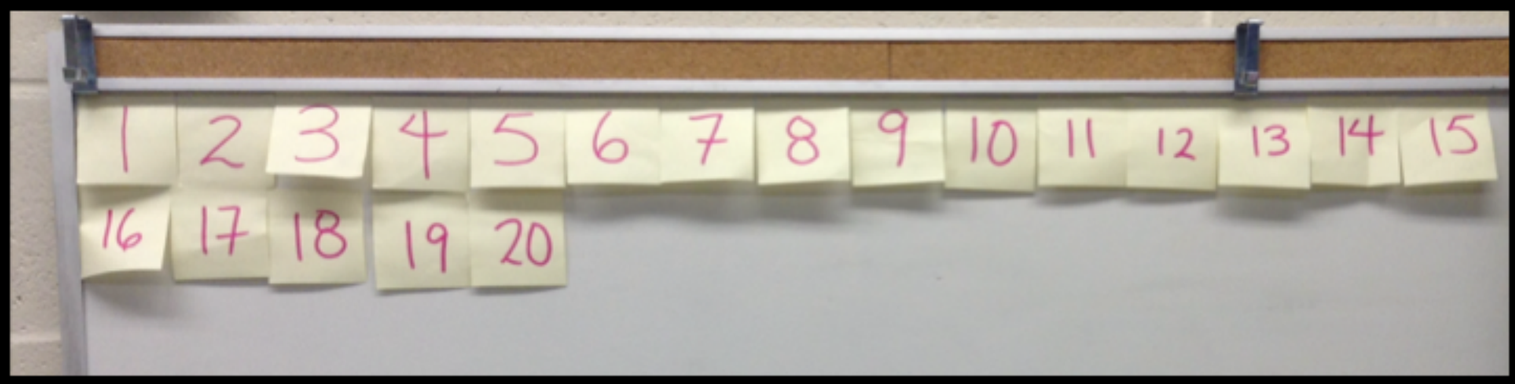


Case 2:
What if Mr. Stewart already had 20 stickies on the board and put the rest up at the same rate?

Write an equation that relates the number of stickies, y, to the time taken to put them up, x.

y = rate of change * x + initial value

$y = (1/4.4)x + 20$



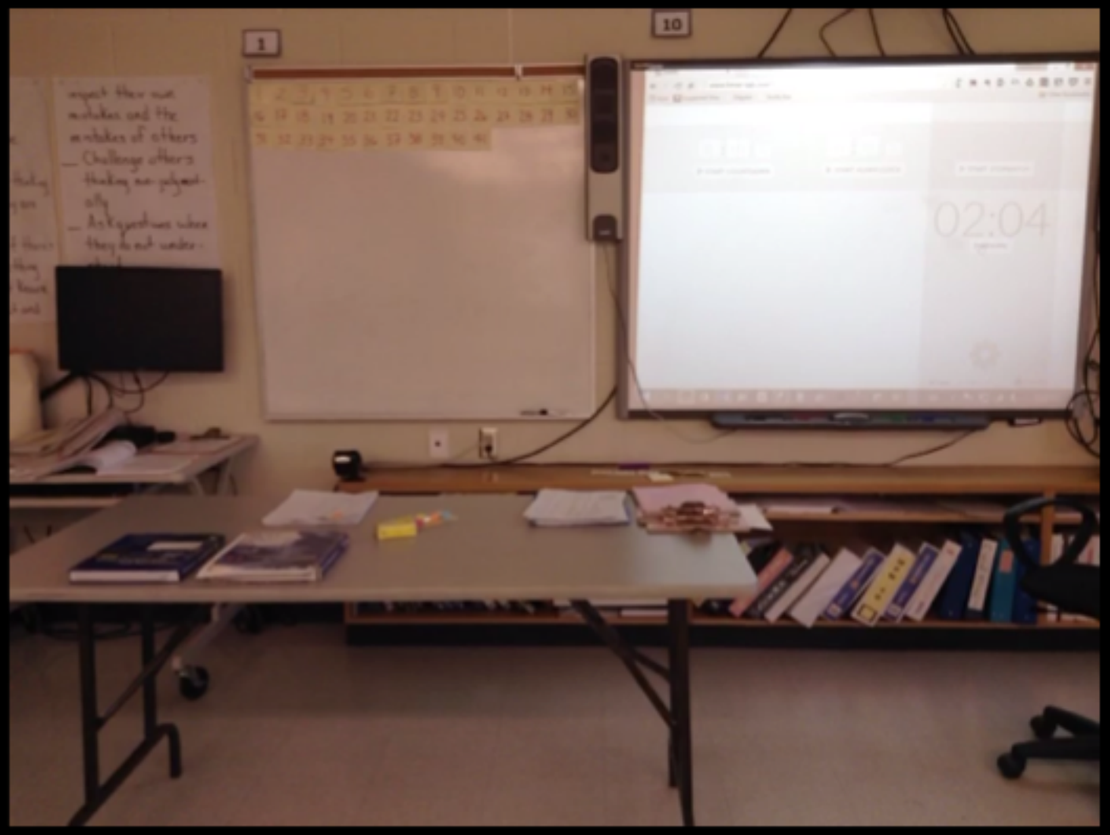
Use the equation to see how many Mr. Stewart has on the board, in total, in 15 seconds.

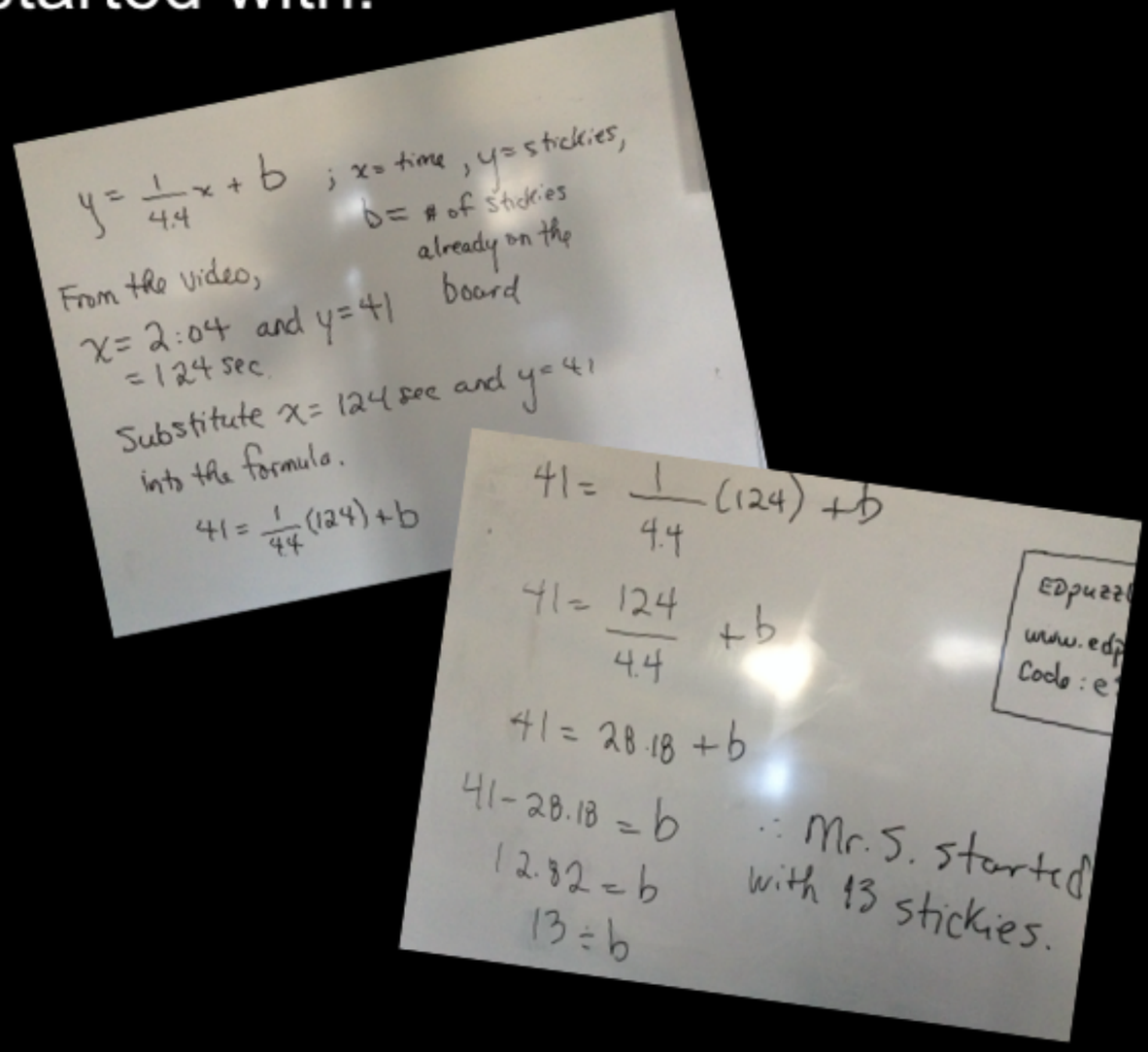
The Big Reveal!

Let's review some video to see if your calculation can be matched by Mr. S.

So...how does our formula value hold up to what just happened?

Case 3:
Let's assume that in this case, Mr. S. keeps the same stick-it rate, but we're unsure as to how many he's started with.





After some time has elapsed, Mr. Stewart has used x = ____ sec to post y = ____ stick-its. [x=2:04 or 124 sec and y = 41 stickies]

How many stick-its did he start with?

$y = \frac{1}{4.4}x + b$; x = time, y = stickies, b = # of stickies already on the board

From the video,

$x = 2:04$ and $y = 41$

$= 124$ sec.

Substitute $x = 124$ sec and $y = 41$ into the formula.

$$41 = \frac{1}{4.4}(124) + b$$

$$41 = \frac{1}{4.4}(124) + b$$

$$41 = \frac{124}{4.4} + b$$

$$41 = 28.18 + b$$

$$41 - 28.18 = b$$

$$12.82 = b$$

$$13 \div b$$

∴ Mr. S. started with 13 stickies.

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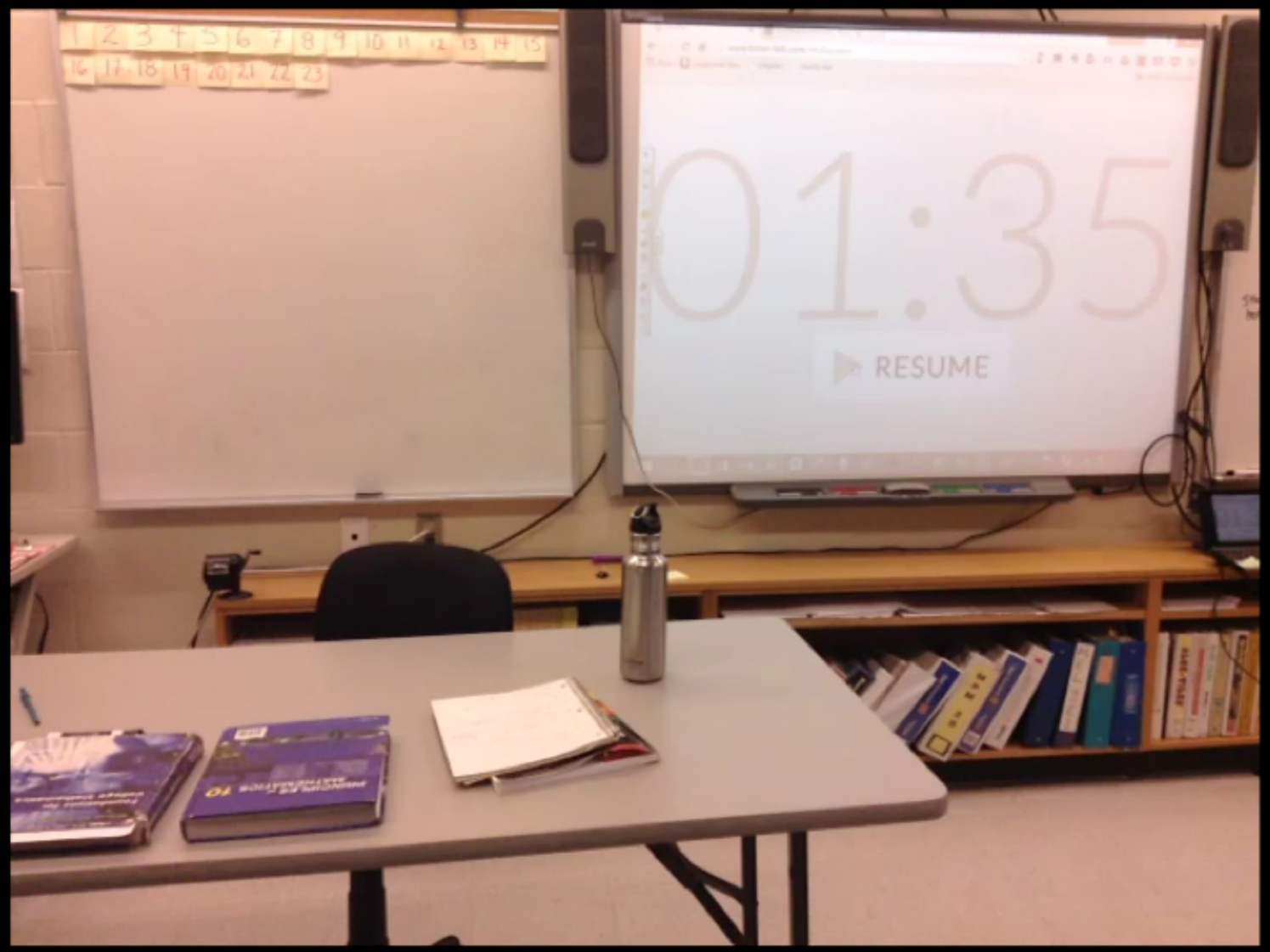
Case 4: This time, let's assume that Mr. S. has altered his rate of change, and we do not know how many stickies he's already got on the board.



Point 1: After x = ___ sec, there are y = ___ stickies.
Point 2: After x = ___ sec, there are y = ___ stickies.

Case 4 (contd.)

a) What was Mr. S's ROC?

b) How many stickies did he start with?