

Week in Review # 7

Sections 5.1

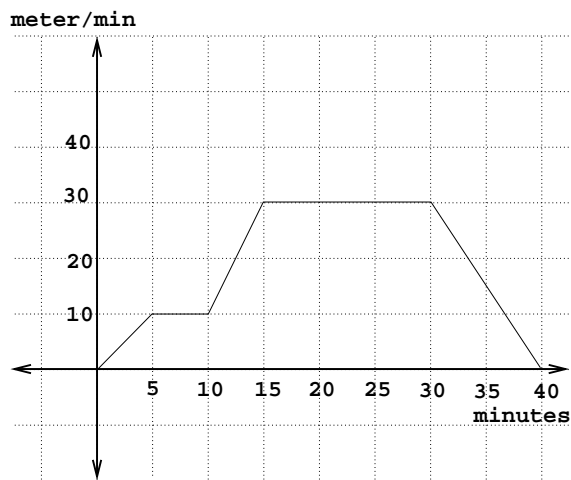
Things to know:

- Be able to compute a left sum or right sum for a data set.
 - Be able to estimate total change using a graph.
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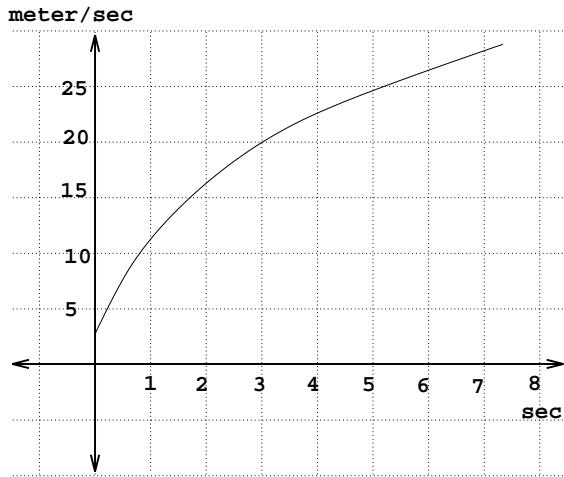
1. Filters at a water treatment plant become less effective over time and hence the amount of pollution passing through the filters increases over time. The rate that pollution passes through the filters is given by the table.

| | | | | | | |
|---------------|---|---|----|----|----|----|
| Day | 0 | 7 | 14 | 21 | 28 | 35 |
| rate (kg/day) | 3 | 5 | 8 | 15 | 25 | 45 |

- (a) Estimate the amount of pollution passing through the filters during the 35 days using the following methods.
- left sum
 - right sum
 - average of the two previous results.
- (b) Which of the estimates is a lower estimate? upper estimate?
2. The function graphed is the speed (meters/minute) of somebody ridding a bike. Give the total distance traveled during that 40 minutes.



3. The graph shows the velocity of an object in meters/sec. Estimate the distance traveled between $t = 0$ and $t = 6$ using the methods listed below.



- (a) left sum with 3 rectangles
 (b) right sum with 3 rectangles
 (c) right sum with 6 rectangles
 (d) by counting rectangles.
4. The graph shows the velocity of an object in mph. Estimate the distance traveled between $t = 0$ and $t = 8$ by counting rectangles

