

Name:

Section 5.1 – In class examples

Math 151 – Spring 2018

1. The following table gives the world oil consumption, in billions of barrels per year. Estimate the total oil consumption during this 25 year period.

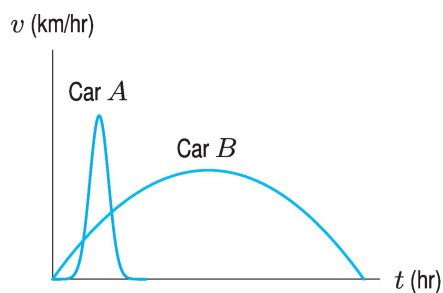
Year	1985	1990	1995	2000	2005	2010
Oil (bn barrels/yr)	20	23	26	28	30	32

Left-hand sum =  $(20)(5) + (23)(5) + (26)(5) + (28)(5) + (30)(5) = 635$  bn barrels.

Right-hand sum =  $(23)(5) + (26)(5) + (28)(5) + (30)(5) + (32)(5) = 695$  bn barrels.

So the oil consumed  $\approx \frac{635 + 695}{2} = 665$  bn barrels.

2. Two cars start from the same time and travel in the same direction along a straight road. The Figure gives the velocity,  $v$ , of each car as a function of time,  $t$ . Which car:



- (a) Attains the larger maximum velocity **Car A**  
(b) Stops first **Car A**  
(c) Travels farther? **Car A** - since the area under the graph is larger than Car B