

## Section 5.1 Worksheet:

Assigned problems: Exercises pp. 258-261, #3, 6, 7, 10, 28, 31, 36, 42, 74, 76

1. Ever hear of the “dirt” formula?  $d=rt$  – distance equals rate time time. What formula does our author prefer to this one, and why?
2. Why limits? Isn't it enough to use 10 rectangles to approximate the area under a curve?
3. All of the methods for computing areas in this section involve chopping the x-axis into equally sized chunks – any reason they have to be equally sized?
4. What's so special about rectangles? Could we have used other geometrical objects to approximate areas under a curve?
5. Explain sigma notation to a friend, using an example.