Corvette Project Name:_____

You may use a calculator to compute solutions but show your set-ups.

Show all relevant work!

Car #	587	585
Class		
DIAL		
R/T	.264	.734
60'	1.626	2.063
330	4.673	5.387
1/8	7.250	8.025
MPH	94.99	94.23
1000	9.498	10.312
E.T.	11.416	12.259
MPH	117.15	116.14

The track times (in miles per hour) for a Corvette are shown in the table above (car 585).

Notes:

- The *reaction time* (R/T) is not part of the time trial - it is meant only to inform the driver of the delay between the time when the signal to start is given and the time when the driver begins to accelerate (so you can ignore it).
- The entry titled MPH is the speed of the car measured at the $1/8^{\text{th}}$ mile point.
- The *elapsed time* (E.T.) is the time measured from when the car first crossed the start line to the time when it crossed the quarter mile finish line.

The question we are interested in answering is how quickly did the car accelerate from 0 to 60 mph?
Before you get too far, please reflect on the reality of an accelerating vehicle (if you have never been in an accelerating vehicle, please inquire of those who have!). Try sketching the situation in terms of different variables (position, velocity, acceleration). Consider your assumptions and their consequences. Are your models reasonable?

Your completed project should include an introduction explaining the problem you are answering; a table showing any data you used in your analysis; the mathematics you used in modeling the situation – including any graphs or additional tables you may have used; and a conclusion using your math to support your result as you address the original question.