2.3 : Looking at Distance Problems

* Look at First Quiz
* How is Problem 2.3 going?
* Looking at Problem 2.9
* Two problems added to assignment

Problem 2.3

\[
(3t)^2 + (3.5(t - 2))^2 = 25^2
\]

\[
9t^2 + (3.5t - 7)^2 = 625
\]
Problem 2.9

**Rough Work**
- rough sketch of what it will look like
- do you need a coordinate system
- identify important numbers and appropriate units
- do some of the early calculations
- have an idea of where you are going before you begin...

**Final Product**
- label clearly what it going on
- keep units on as many numbers as you can
- "No Mystery Numbers" (where did it come from)
- complete, correct, and in context answer
- have someone else read it at the end to see if they can follow your work

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**Problem 2.9**

\[
\text{Speed of Mercedes in ft/sec} = \frac{32 \text{mi/hr}}{1 \text{hr}} \cdot \frac{5280 \text{ft}}{1 \text{mi}} \cdot \frac{1 \text{min}}{60 \text{min}} \cdot \frac{1 \text{sec}}{60 \text{sec}} = 46.93 \text{ ft/sec}
\]

\[
\text{Time to intersection for Mercedes} = \frac{400 \text{ft}}{46.93 \text{ ft/sec}} = 8.523 \text{ seconds}
\]

**Ferrari has same time.**

\[
\text{Speed of Ferrari} = \frac{624 \text{ ft}}{8.523 \text{ sec}} \cdot \frac{1 \text{ mi}}{5280 \text{ ft/hr}} \cdot \frac{3600 \text{ sec}}{1 \text{ hr}} = 49.92 \text{ mi/hr}
\]
Assignment (Monday 9/15 [packet likely on 9/16])

1) Read Pg. 20-24

2) Packet 2
   a) 2.12, 2.13, 2.1, 2.3, 2.4, 2.2
   
   b) 2.5, 2.6*

   *(warning!!)*

3) Look over first quiz and see what you can do better