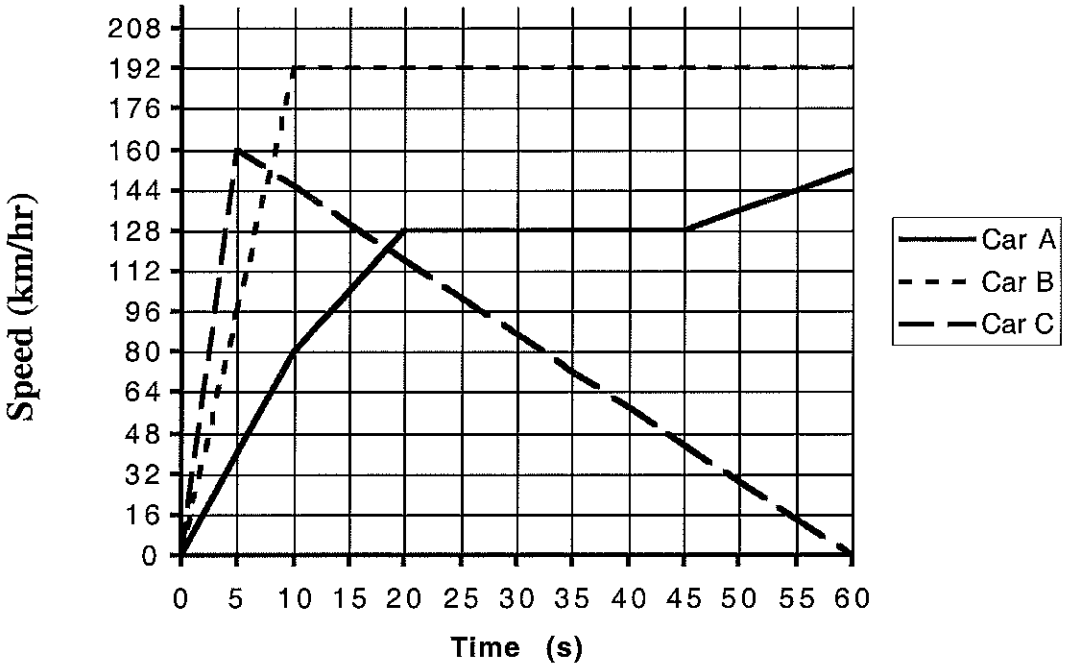
Worksheet: Acceleration Graph Period_____ Date_____

(Frameworks Code)

Part A: The graph below represents 3 cars during the first minute of a race. Using the following information, draw another curve on the grid representing the motion of car D, and add car D to the key:

Car D:
1. Steadily accelerates from rest at 0 s to a speed of 208 km/hr at 5 s
2. Maintains the speed of 208 km/hr from 5 s to 10 s
3. Steadily decelerates down to 32 km/hr from 10 s to 20 s
4. Steadily accelerates up to 160 km/hr from 20 s to 30 s
5. Maintains the speed of 160 km/hr from 30 s to 35 s
6. Steadily decelerates down to 112 km/hr from 35 s to 40 s
7. Steadily decelerates down to 64 km/hr from 40 s to 50 s
8. Steadily accelerates to 208 km/hr from 50 s to 60 s



1. Over which time period is Car B's acceleration the greatest? What feature of the line allows you to determine this fact? _____
2. What is car B's speed at 10 s? _____
3. When is Car B's acceleration at 0? _____
4. When is Car C's acceleration at 0? _____
5. Which car(s) have a negative acceleration during the race? _____
6. Which car has traveled the farthest at the end of one minute? _____
7. Which car may have had a reckless driver? Explain. _____
8. Which car appears to have stalled? Explain. _____
9. Write a title above the graph.