



# DMVR PDX Group 1

## Today's Goals

1. Learn the fundamentals of driving fast
  - Learn the “school” line and how to dissect a corner
  - Fundamentals of braking
  - Fundamentals of throttle input
2. Become comfortable and confident on track
3. Learn how to evaluate your own driving





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## The Three Principals of Performance Driving

### 1. Be Smooth

1. Outputs should not be jerky. Slowly squeeze pedals, and dial in steering input in a smooth motion
2. Outputs should be performed with confidence and in a singular motion

### 2. The Rule of ONE

1. Do one thing at a time.
2. If you are adding multiple outputs, make sure they add up to one – “Cable Method”

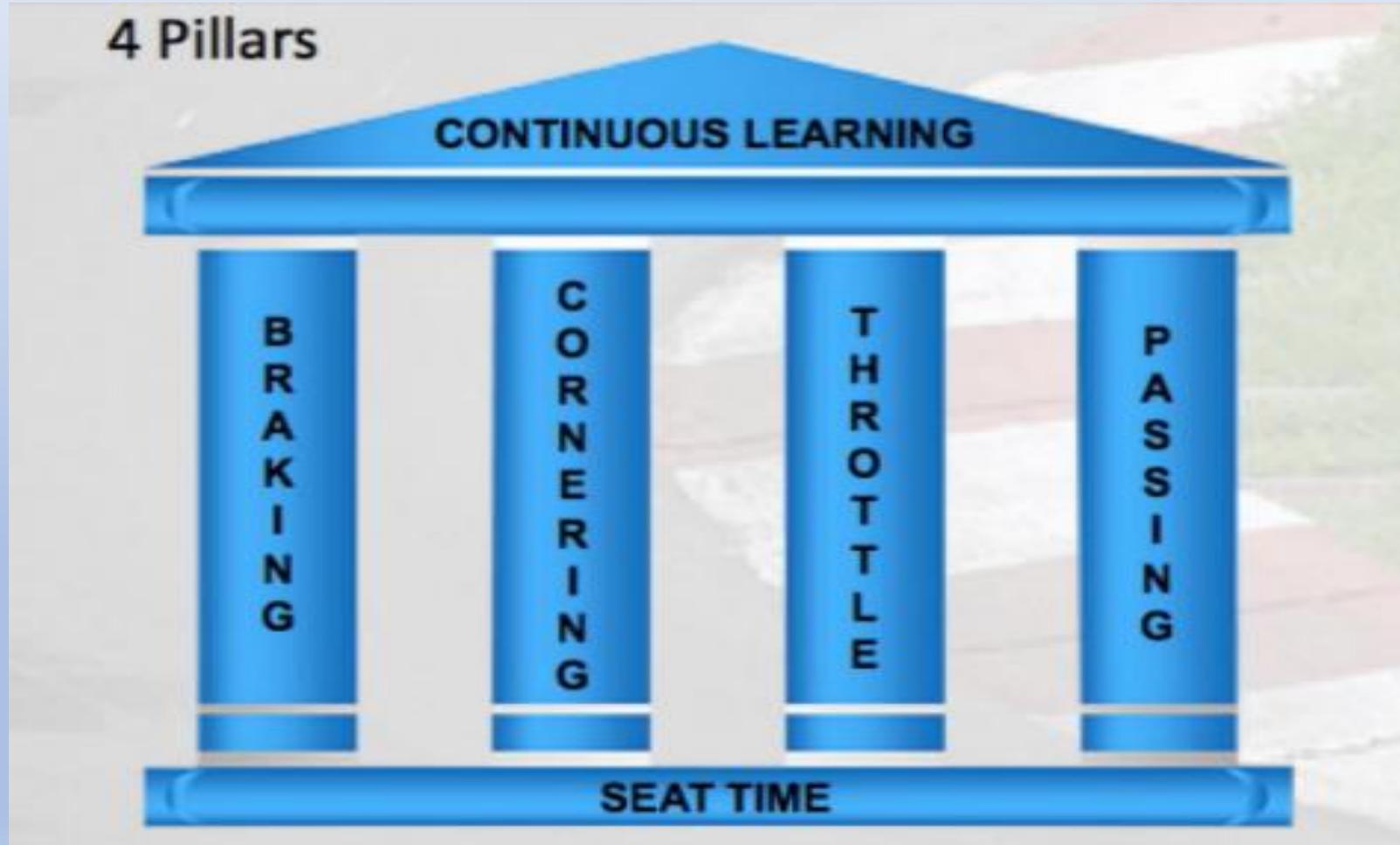
### 3. Keep Your Eyes and Mind Ahead

1. Feed your mind information EARLY by using your eyes to look AHEAD
2. Anticipate what the car will be doing for your next output



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# The Pillars of Performance Driving





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## Braking

1. Transition from brake to throttle
2. Start to apply brake pressure smoothly
3. Progress pressure to full brake power
4. Release brake smoothly and slowly

## Throttle Usage

1. Maintenance throttle
2. “Cable Method” throttle Input
3. Go, Go, GO!!

## Cornering

1. Early Apex, Apex, Late Apex
2. How corner entry effects exit
3. Entry, Apex, Track out

## Passing

1. Communication
2. Set it up
3. Execute



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# The rule of one

**Do one thing at a time when you are using everything the car will give you**

Your car has a set amount to give you. Different cars can give different amounts, but it all adds up to one.

Braking, acceleration, and turning have a fluid relationship, and the closer you are to a sum of one, the faster you will be.

Go over that barrier, and you are either slow, or out of control.



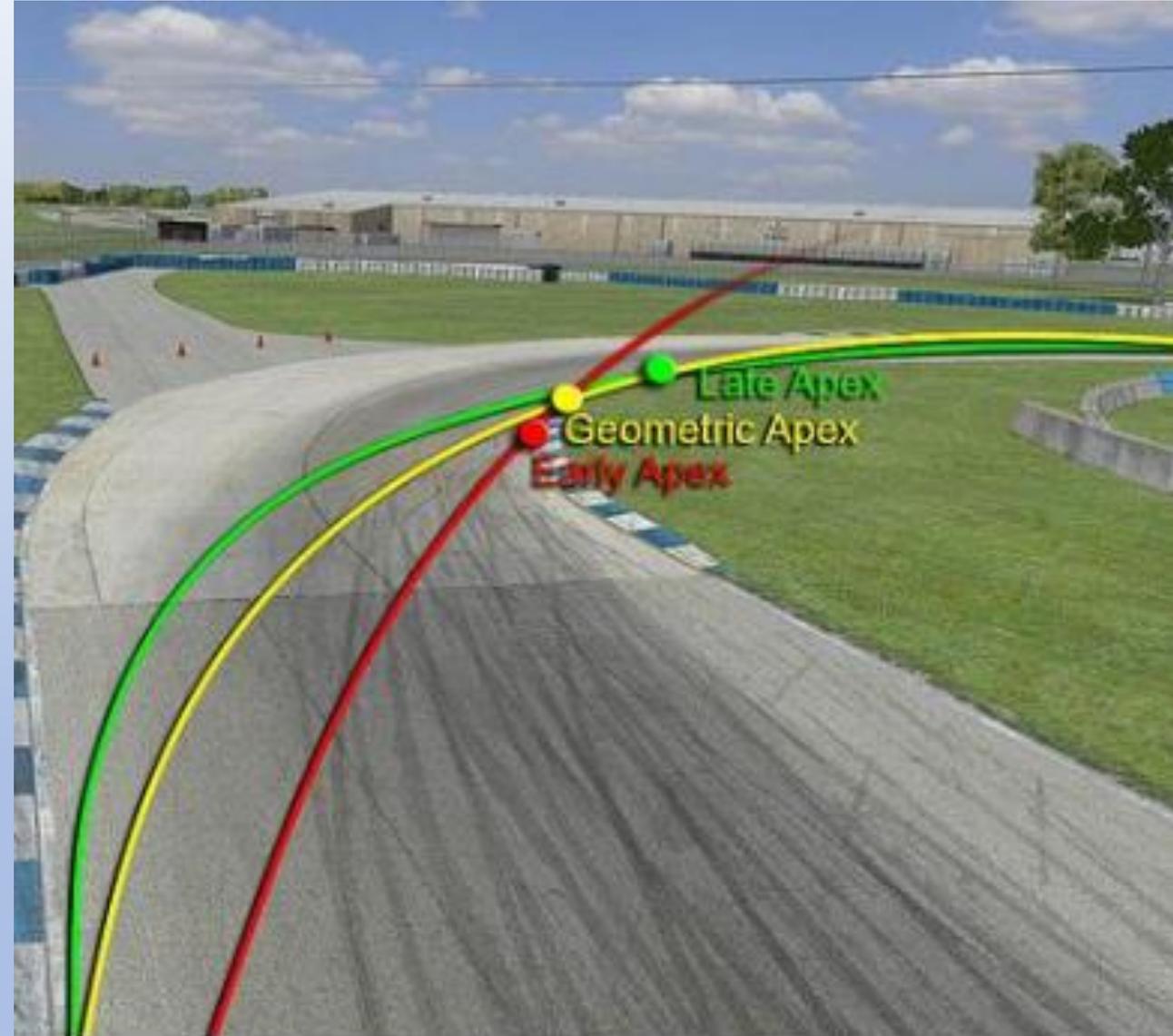
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## Types of Apexes

**Early Apex:** Fastest way INTO a corner:  
Leaves the LEAST amount of room on exit

**Geometric Apex:** Fastest line THROUGH  
a corner

**Late Apex:** Fastest line OUT of a corner  
– Leaves the most amount of room on exit, and is therefore the safest line





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## The Classic Line

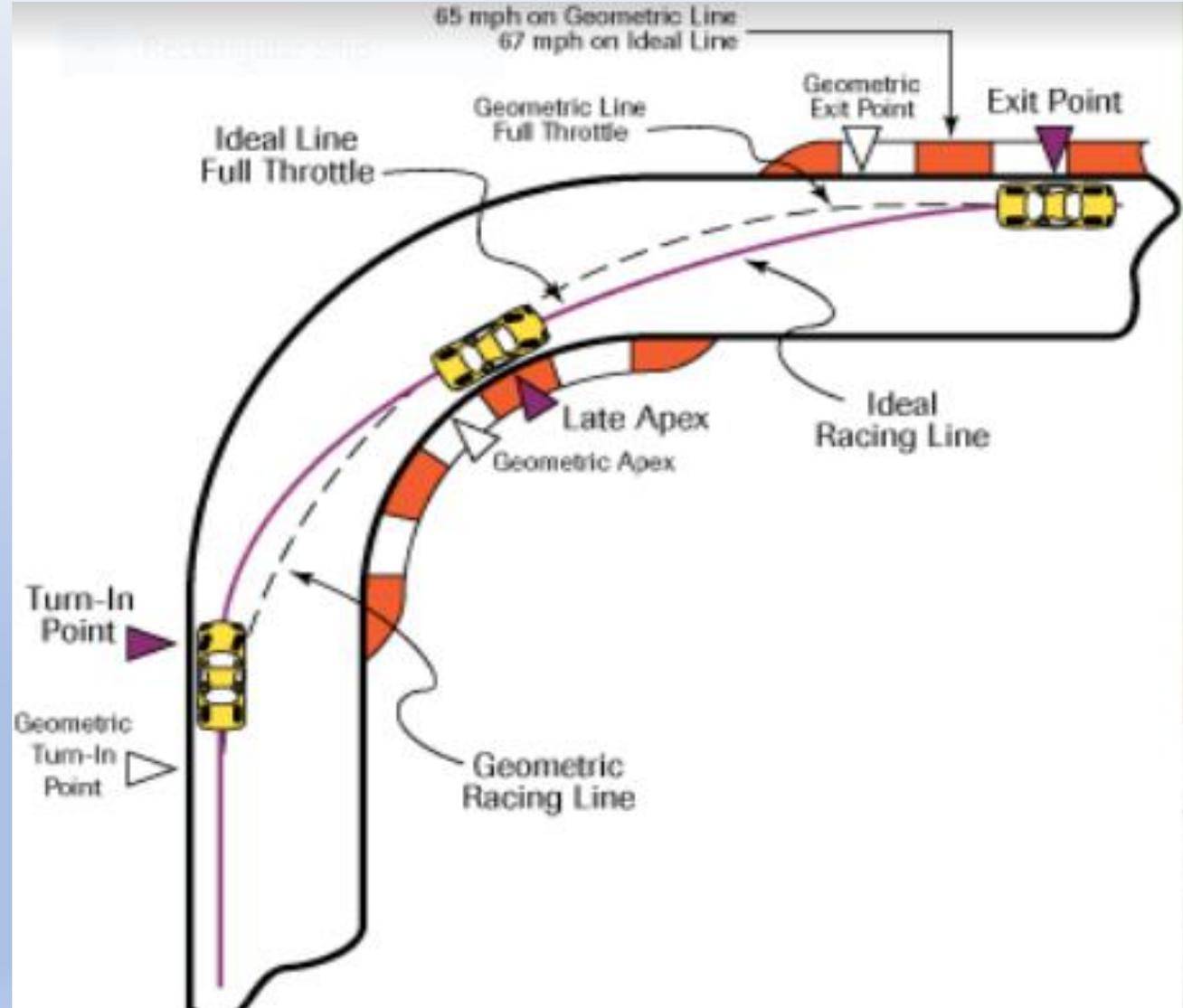
Maintains the highest average speed around a corner

-Also the safest way around a corner

Outside , Inside, Outside

-O-I-O

Other lines can be better for different reasons.





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**So, How do we do it?**

Aka – The Rhythm

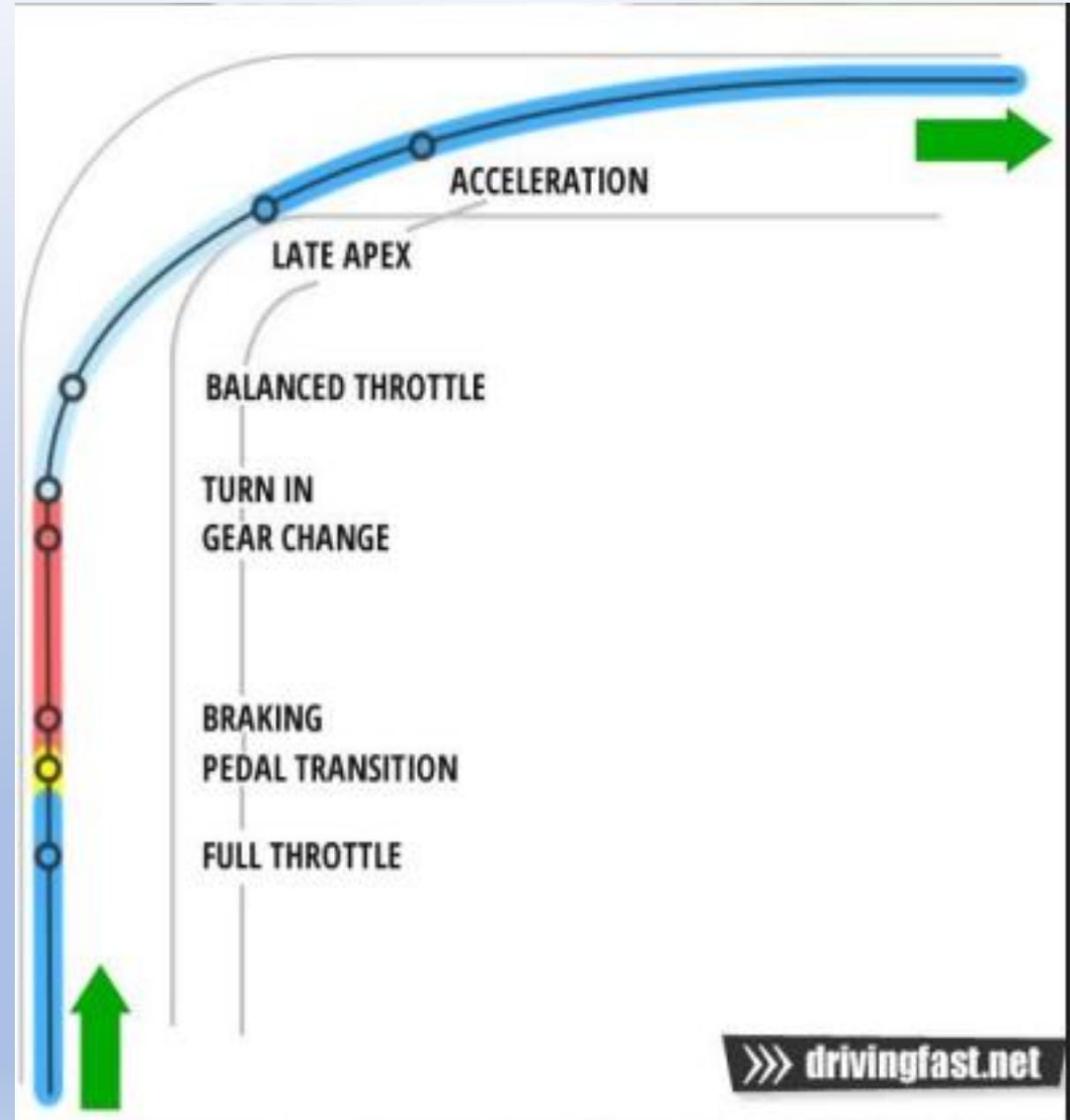
**Brake:** Brake hard, but do not lock up. Need to be able to steer.

**Maintenance:** Don't decelerate, don't accelerate. Allow the car to balance before turn in. (prepare for the rule on one)

**Turn in:** Set the steering for the corner – LOOK AT YOUR EXIT!

**Modulate:** Mild throttle, brake steering inputs to guide the car

**Accelerate:** ROLL onto full power to the next corner



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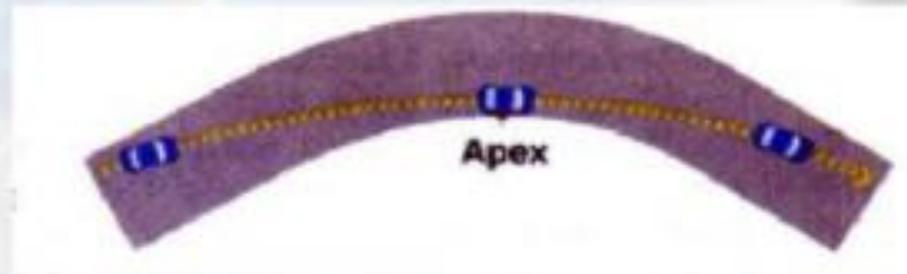
## Apex – Typical corner styles



Decreasing or uniform radius with a late apex



Increasing radius with an early apex (room to exit)



Sweeper with a normal apex (almost straight line)



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## First Drill Session

### Apex Drills

**Lap one** – EARLY Apex

**Lap two** – LATE Apex

**Lap three** – EARLY Apex

Focus on how your turn in point affects your corner exit.

What allows for the fastest exit, and faster straight speeds ?

Watch your instructors hands. Turn in when they turn in.



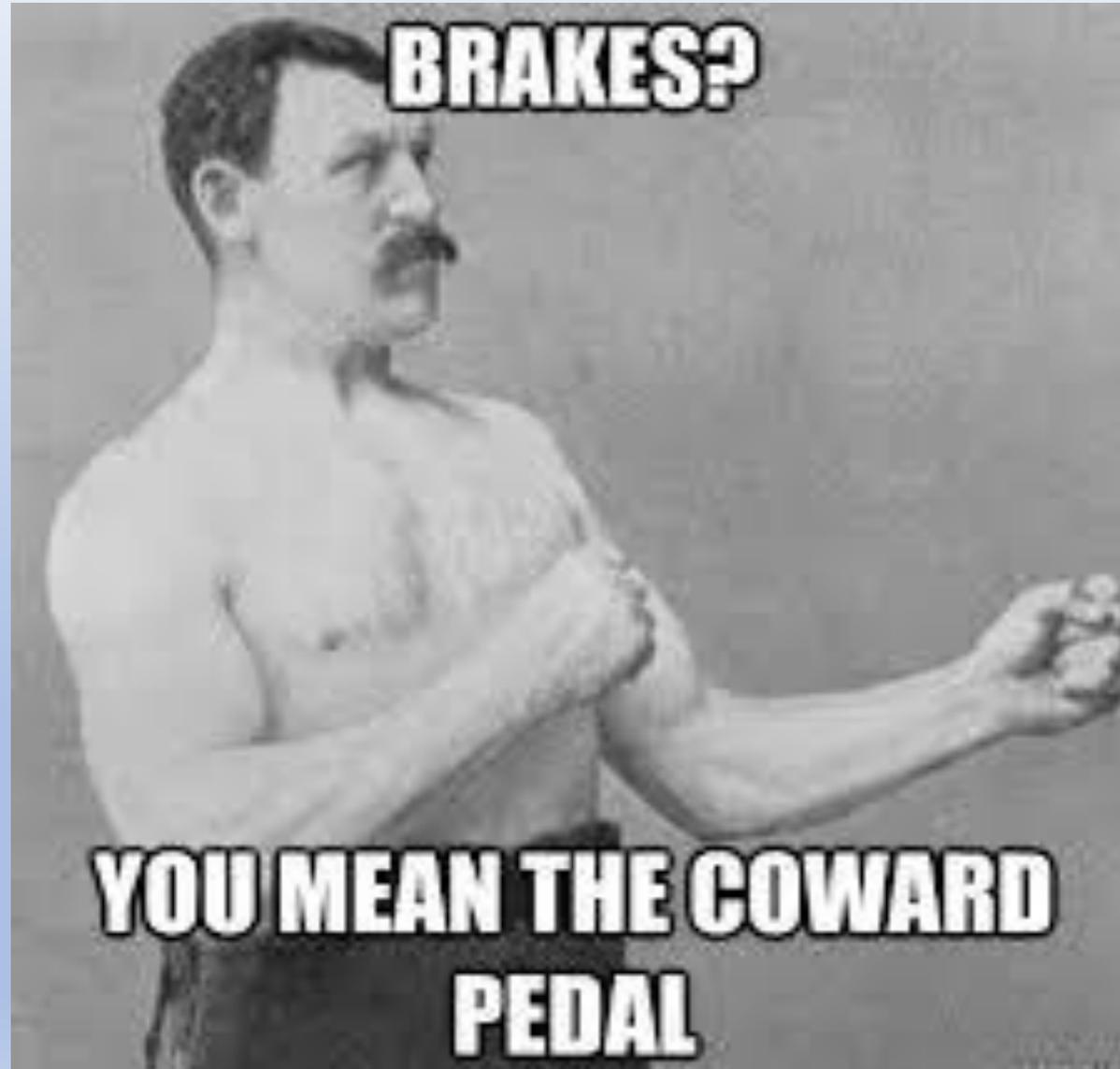
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End of class 1





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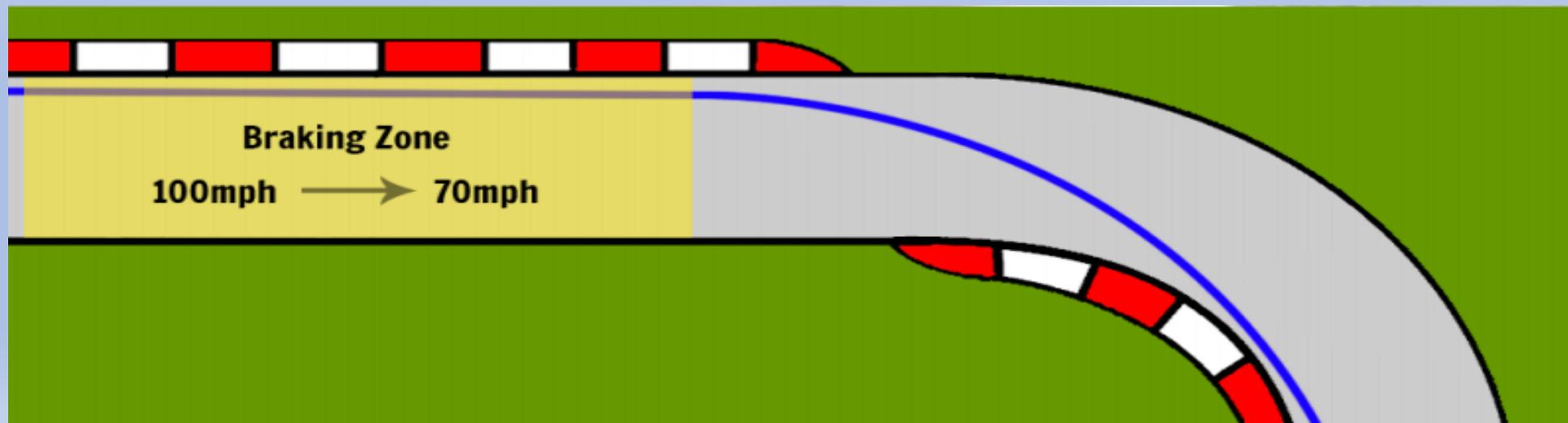


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## The Braking Zone

The area of the track that you obtain your cornering speed with the brake pedal.

Use the entire rule of one for BRAKING in this area





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### Four Common Braking Errors, so...

- Don't: Coast Before Initiating Braking
  - DO: Be at full-throttle right up to the braking point
- Don't: Use Highway Braking
  - DO: Quickly/Smoothly initiate full-force braking
  - DO: Ease off braking at end of braking zone
- Don't: Brake Hard Too Soon
  - DO: Use only as much of the braking zone as needed
- Don't: Brake Hard Too Late
  - DO: Brake late, but *maintain balance* at turn in



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# What do we use brakes for?

-No, it is not to stop.

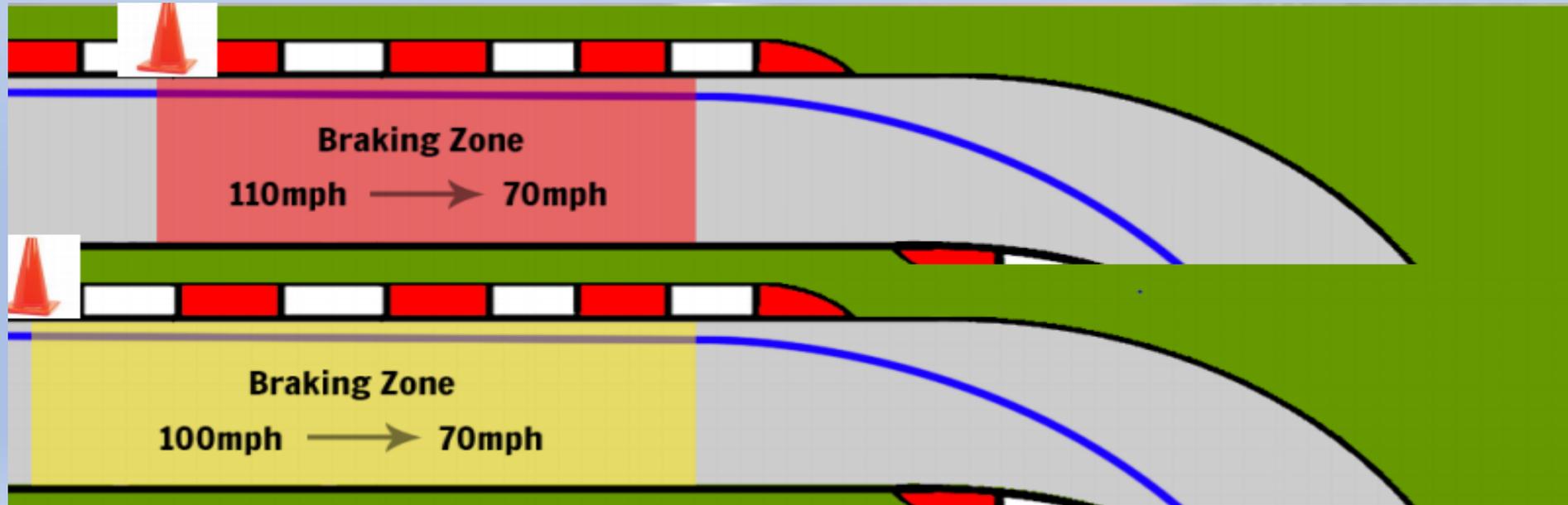
Brakes are our tool to achieve our ideal corner **speed** and **balance** for the upcoming turn. Corner speed is EVERYTHING to driving fast

We use the brakes to decelerate to the highest speed we can get around the corner at, and we use brakes to balance and settle the car from the unsettling deceleration.



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## How to dial in the brake zone SAFELY.



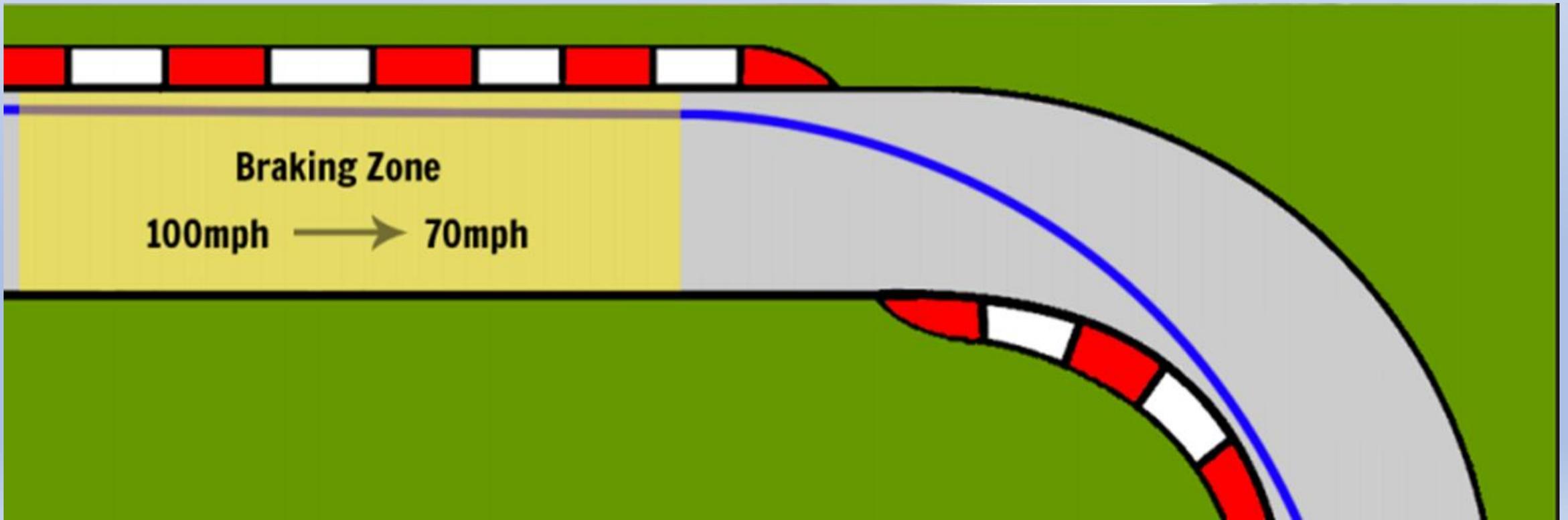


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Begin with what you are COMFORTABLE with

Do not adjust your brake marker first, Adjust your RELEASE first

After you see you much earlier you can release, then start taking that distance off the front of the brake zone





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A different way to look at your brakes

Next time you are on the track, try thinking about the brakes in a different way: Instead of thinking, "I need to hit the brakes to slow down," say to yourself, "I need to apply the brakes only just enough to make it through the corner as fast as possible." Changing the way you think while driving on the track has a big influence on how you use the brakes.

-By Boris Peharda as taught by Shields Bergstrom





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### Session Three Drill – Braking

- Identify at least one “good” corner to work on
- Adjust braking in small increments
- Do not adjust the point that you initiate braking at first
- Focus on **RELEASING** your brake earlier to raise rolling speed through the corner
- After you see how much distance that you are coasting, start taking that distance off the front of the brake zone
- ID the impact this has on your apex and exit speed



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# It's time to use that right foot.

- The Cable Method

Pretend your right foot and your steering wheel are connected with a cable.

As you are exiting the corner and you are unwinding the steering wheel as you are SQUEEZING the gas

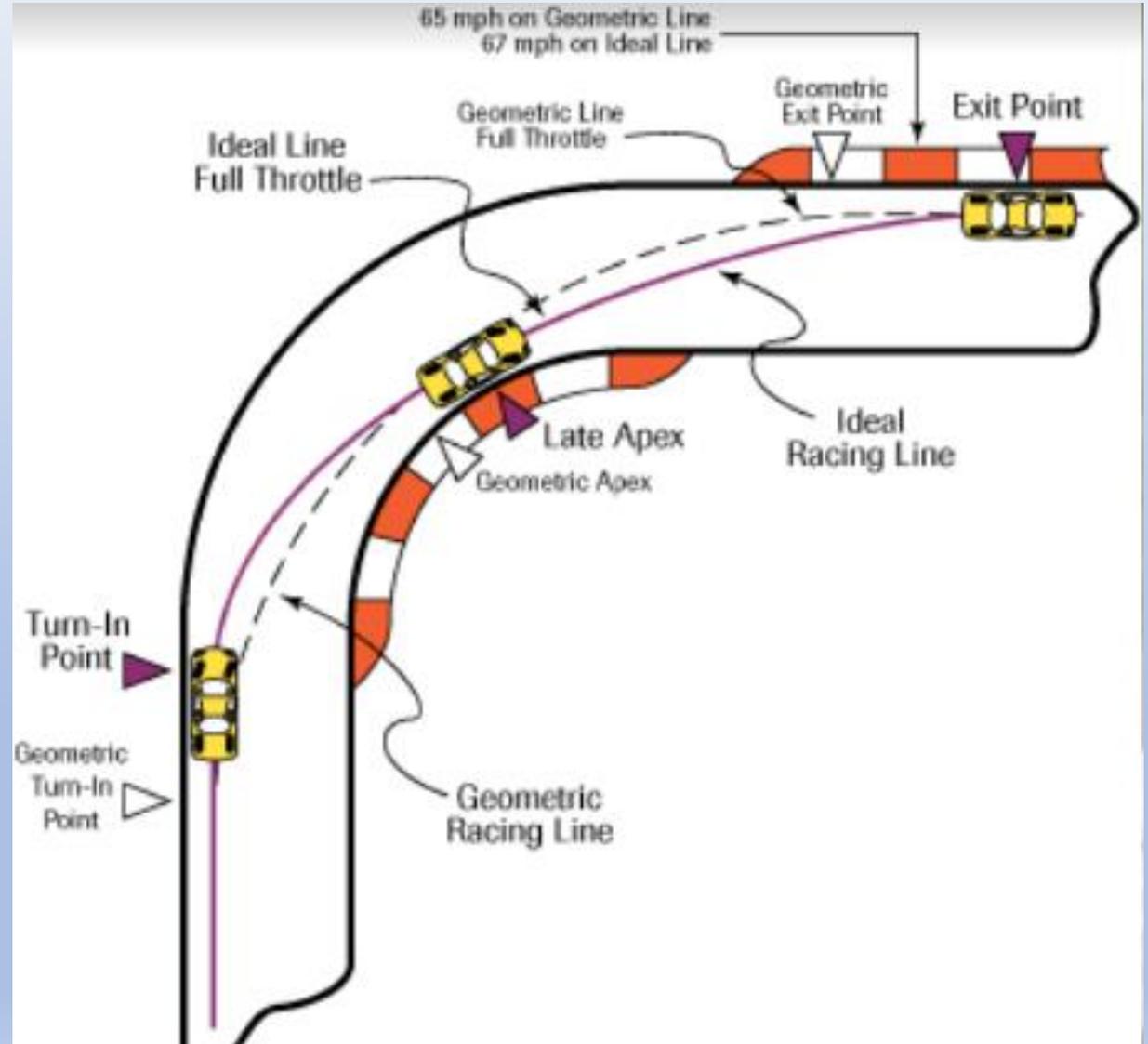
Remember the rule of one. The sum of your outputs should be one



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## The Beauty of a Proper Apex

- ...is that you can get on the gas sooner
- If the steering input is correct, you can drive the car the exit with the throttle
- SMOOTH input, SQUEEZE on and track out to the exit with the throttle





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## What happens when...

- Acceleration happens too soon during cornering?
- Acceleration happens too late?



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## Session four drill

- **One lap – EARLY acceleration – Get on the gas early , before the apex**
- **Where does this put the car on exit, and how does it affect your throttle output down the straight?**
- **One lap – Late acceleration – get on the gas after the apex**
- **What does this do to your exit position ?**
- **LISTEN to your instructor!!!**



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