Piper Seminole Maneuvers --- Quick Reference Sheet

Slow Flight *
1. Clearing turn at or above 3000 feet AGL (5,200 MSL+)
2. Landing gear – Down below 140 KIAS/ Gear down 3 green-mirror.
3. Increase pitch to maintain altitude as airspeed decreases TRIM
4. Extend full flaps (in white arc)
5. Upon reaching 60-70 KIAS increase power approx 17”
6. Maintain coordinated flight
7. Perform straight and level, and turns (20° or less)
8. Use power to maintain altitude and pitch to maintain airspeed

Recovery*
1. Apply Maximum manifold pressure, flaps 25°, reduce pitch to maintain altitude – TRIM
2. Gear Up
3. Retract flaps to 10° accelerating through 75 KIAS TRIM
4. Retract flaps to 0° accelerating through 90 KIAS TRIM
5. Accelerate to normal cruise or as specified and reduce power as necessary.

Power Off Stall (Approach to landing Stall)*
1. Clearing turn at or above 3000 feet AGL (5,200 MSL+)
2. Reduce Power to 18”/2500 RPM
3. Landing gear – Down below 140 KIAS/ Gear down 3 green-mirror.
4. Extend full flaps one notch at a time(below 111 KIAS)
5. Establish 15”/90 KIAS descent
6. Prop-2500 RPM Mixture – As required
6. Power to idle at selected altitude.
7. Apply back pressure to maintain altitude
8. Announce “imminent stall” at stall warning horn.
9. Announce “stall” when stall occurs

Recovery*
1. Reduce pitch, Maximum manifold pressure, wings level with coordinated rudder and aileron
2 Retract flaps to 25° establish climb/Vyse pitch attitude
3. Positive climb on VSI or Alt- Gear - Up
4. Retract flaps to 10° accelerating through 75 KIAS TRIM
5. Retract flaps to 0° accelerating through 85 KIAS and stabilize climbout at Vy (88 KIAS.)
6. Level off as specified by Instructor (pitch, power 18”/2400 rpm, trim)

Power On Stall (Departure Stall)*
1. Clearing turn at or above 3000 feet AGL (5,200 MSL+)
2. Prop 2500 RPM - Mixture As required
3. Slow to 90 KIAS level flight
4. Add power to 20” MP
5. Establish and maintain pitch attitude that will induce stall.
6. Announce “imminent stall” at stall warning horn
7. Announce “stall” when stall occurs

Recovery*
1. Maximum manifold pressure, reduce pitch then establish Vy pitch attitude
2. Establish Vy 88KIAS
3. Level off as specified by Instructor (pitch, power 18”/2400 rpm, trim)

Accelerated Stall
1. Clearing turn at or above 3000 feet AGL (5,200 MSL+)
2. Prop 2500 RPM - Mixture As required
3. Manifold Pressure – 15”
4. As Airspeed decreases to 100 KIAS initiate 45° bank constant altitude turn
5. As airspeed decreases to 75-80 KIAS firmly increase back pressure to initiate stall.

Recovery
1. Initiate recovery on first indication of the stall.
2. Release back pressure, maximum manifold pressure, wings level with coordinated rudder and aileron.
3. Establish Vy(takeoff) pitch attitude and accelerate to Vy 88 KIAS
4. Level off as specified by Instructor (pitch, power 18”/2400 rpm, trim)

Steep Turns
1 Note heading (outside reference point) and altitude
2. Establish airspeed at 120-KIAS (2300 RPM/17” MAP)
3. Roll into a 45° bank turn (50° minimum for commercial)
4. Back pressure and power to maintain altitude and airspeed
5. Continuous scan (out front, VSI, altimeter, airspeed indicator)
6. Lead rollout for heading by 20°
7. Reduce power and pitch as necessary to maintain altitude and airspeed

Vmc Demo
1. Slow to 100 KIAS – Trim
2. Power to Idle on one engine
3. Full power on other engine
4. Bank 5º toward engine at full power
5. Increase pitch to decelerate at 1 Kt/sec
6. Recover on uncontrolled yaw or any stall symptom

Vmc Demo recovery
1. Reduce power on operating engine to reduce yaw.
2. Add power on operating engine when directional control is re-established
2. Maintain heading and accelerate to 88 KIAS
3. Complete recovery to level flight with both engines

Short Field Takeoff and Landing
Takeoff (0° Flaps)
1. Taxi onto runway centerline (use all available runway)
2. Hold brakes
3. Apply full power
4. Release brakes
5. Announce (engine instruments checked) (RPM and Oil Gauge)
6. Announce “airspeed alive”
7. Accelerate to Vr (70 KIAS) pitch to rotate and obtain 75 KIAS at 50’
3. Positive climb on VSI or Alt- Gear - Up
8. Climb at Vx (82 KIAS) until obstacle is cleared
9. Announce “obstacles cleared”
11. Pitch for Vy 88 KIAS

Landing
1. Select runway touchdown point
2. Approaching abeam the tower on downwind-Gear down/3 green-mirror checked
3. Abeam touchdown point (15” MP, 10° flaps-below 111 KIAS)
4. Pitch for 100 KIAS
5. When touchdown point is 45° off shoulder turn base/Ref Altitude 2800’
6. Extend 25° flaps and pitch for 90 KIAS.
7. Turn final, (Ref Altitude 2600’)extend 40° flaps, and pitch for 75 KIAS.
8. Smoothly reduce power so as to land on the selected point on the runway (must be at or beyond specified point, within 200/100 feet)
9.Upon landing, retract all flaps, apply maximum braking (no tire skid), full back pressure on yoke

Crosswind Taxi
Climb into headwind or dive away from tailwind

Reference Air speeds/KIAS

Vr 75		Vno 169
Vx 82	Vxse 82	Vne 202
Vy 88	Vyse 88	Vfe 111
Vlo_{down} 140	Vlo_{up} 109	

Best Glide 90
Vso 55
Vs1 57
Va 135 @ 3800 lbs / 112 @ 2700

* For slow flight and stalls set RPM to 2500 before initiating decleration and maintain that prop setting throughout recovery