

RULES OF THUMB

INOP. EQUIP

Is it required by the kinds of equipment list or required equipment list (POH)

Is it required by the aircraft type certificate data sheet (TCDS)?

Is it required by ad?

Is it required by far 91.205? (TOMATOFLAMES/FLAPS)

IF YES TO ANY, YOU ARE NOT LEGAL

SPEED

SPEED/DISTANCE

60kt=1nm per minute
 90 kt = 1.5nm per minute
 120 kt = 2nm/minute
 150kt = 2.5nm/min
 180kt=3nm/min

ESTIMATING TAS

Add 2% to IAS for each 1,000' PA
 @5,000' at 100KIAS, tAS =110kt

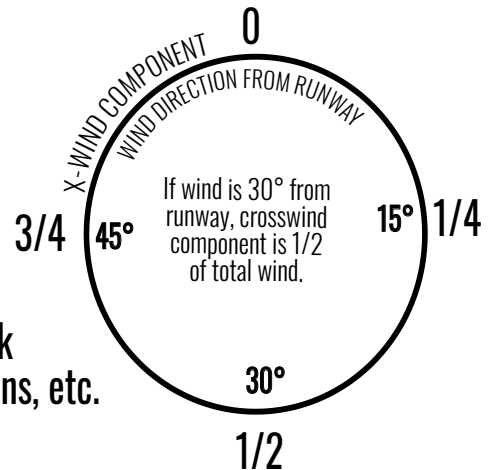
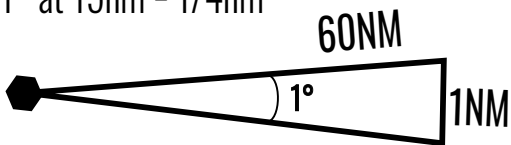
3° DESCENT V/S

GS/2, add a zero
 70kt = 350fpm
 90kt = 450fpm
 100 kt = 500fpm

60:1 RULE

1° from a VOR is equal to 1nm at 60nm from the station.

1° at 60nm = 1nm
 1° at 30nm = 1/2nm
 1° at 15nm = 1/4nm



Think of a clock
 15 mins, 30 mins, etc.

PERFORMANCE

10/20 RULE

A 10% increase in groundspeed increases ground roll by 20%

Every 8°C increases density altitude by 1,000'

Increase takeoff distance by 10% for each 1000' DA

50/70 RULE

If you haven't reached 70% of your takeoff speed by 50% of the runway, you may not have enough power to takeoff safely

EVERY 1° INCREASES DENSITY ALTITUDE BY 120'

EVERY 1°C INCREASE INCREASES TAKEOFF AND LANDING DISTANCE BY 1%

100LL: 6LB/GAL
 JET-A: 6.75LB/GAL
 50W OIL: 7.5 LB/GAL

This is because you increase drag as you continue to accelerate