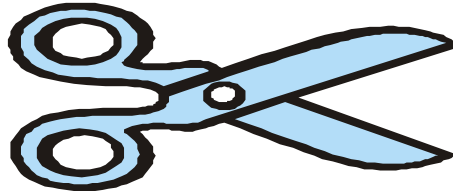


CUT THIS OUT



°C	°F
38	100
35	95
32	90
29	85
27	80
24	75
21	70
18	65
15	59
13	55
10	50
7	45
4	40
2	35
0	32
-4	25
-7	20
-9	15
-12	10
-15	5
-18	0
-21	-5
-23	-10
-26	-15
-29	-20
-32	-25

Reciprocals

360° - 180°
010° - 190°
020° - 200°
030° - 210°
040° - 220°
050° - 230°
060° - 240°
070° - 250°
080° - 260°
090° - 270°
100° - 280°
110° - 290°
120° - 300°
130° - 310°
140° - 320°
150° - 330°
160° - 340°
170° - 350°

800-992-7433

IFR (VFR)
 (Tail#) _____
 (AC Type) _____ **/U/A/G**
 _____ **Knots**
 (Where am I?) _____
Departure **T**ime _____ (or ASAP)
 _____ **thousand**
D → _____ **D** → & **L**ndg _____
 _____ **hours enroute**
 Remarks _____
 _____ **hours fuel**
Alternate?
 Name _____ spelled _____
 Based in _____ Phone # _____
 _____ **on board**
 (color) _____ & _____

Measurements

1/64 - 1/32 - 3/64 -	1/16
5/64 - 3/32 - 7/64 -	1/8
9/64 - 5/32 - 11/64 -	3/16
13/64 - 7/32 - 15/64 -	1/4
17/64 - 9/32 - 19/64 -	5/16
21/64 - 11/32 - 23/64 -	3/8
25/64 - 13/32 - 27/64 -	7/16
29/64 - 15/32 - 31/64 -	1/2
33/64 - 17/32 - 35/64 -	9/16
37/64 - 19/32 - 39/64 -	5/8
41/64 - 21/32 - 43/64 -	11/16
45/64 - 23/32 - 47/64 -	3/4
49/64 - 25/32 - 51/64 -	13/16
53/64 - 27/32 - 55/64 -	7/8
57/64 - 29/32 - 59/64 -	15/16
61/64 - 31/32 - 63/64 -	1"

This TAKEOFF mnemonic will keep you alive in virtually any airplane. If you're flying a turbine or jet, you might want to add the IGNITERS at the end.

Always do the **real checklist FIRST**, and then back it up with this mnemonic. You'd be amazed how often a checklist item inadvertently gets omitted, even in a 737.

DG

Transponder

Pumps / **P**rops
Vacuum
Trim

Flaps / **F**uel
Lights
Attitude / **A**ltitude
Doors
Engines
Controls

SPIN Recovery

PARE

Power — IDLE
Ailerons — NEUTRAL
Rudder — OPPOSITE direction of spin
Elevator — Briskly FORWARD

SHUTDOWN

Radios
Mags
Lights
MASTER

Conversions, Comparisons, Formulas & Weights	
Aeronautical Chart Scales	Sectional..... 8 SM or 7 NM per inch WAC and ONC 16 SM or 14 NM per inch Terminal Area 4 SM or 3.5 NM per inch
MILES / KILOMETERS	1 NM = 1.15078 SM = 6,076.12 feet = 2025.3733 yards = 1.852 kilometers 1 SM = .86898 NM = 5,280 feet = 1760 yards = 1.6093 kilometers 1 Kilometer = 3,281 feet = 0.62137 SM = 0.53996 NM = 1093.6666 yards
SPEED	1 SM Per Hour = 88 Feet Per Minute = 1.46 Feet Per Second 1 NM Per Hour (1 Knot) = 101.288 Feet Per Minute = 1.69 Feet Per Second 120 knots = 2 NM per min or 5:00 to go 10 miles 240 knots = 4 NM per min or 2:30 to go 10 miles 480 knots = 8 NM per min or 1:15 to go 10 miles
Speed of Sound (knots)	<div style="border: 1px dashed black; padding: 5px; display: inline-block;"> This formula will determine the speed of sound to within 1 knot $39 \times \sqrt{\text{OAT in Kelvin}}$ </div> <div style="border: 1px dashed black; padding: 5px; display: inline-block; margin-left: 20px;"> Speed of Sound @ 15°C = 661.7 knots or 1116.9 feet per second </div>
TEMPERATURE	<div style="border: 1px dashed black; padding: 5px; display: inline-block;"> $^{\circ}\text{C to }^{\circ}\text{F}$ 30's hot, 20's nice, 10 is cold and 0's ice </div> <div style="display: inline-block; margin-left: 20px;"> $\text{Kelvin} = ^{\circ}\text{Celsius} + 273$ $(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$ $(^{\circ}\text{F} - 32) / 9 = ^{\circ}\text{C}$ $^{\circ}\text{Rankin} = ^{\circ}\text{Fahrenheit} + 459.7$ </div> <div style="border: 1px dashed black; padding: 5px; display: inline-block; margin-left: 20px;"> $^{\circ}\text{C to }^{\circ}\text{F Ballpark Figure:}$ Double the number of °C and add 30. $2 \times 15^{\circ}\text{C} = 30 + 30 = 60^{\circ}\text{F}$ </div>
WEIGHT	100LL Av Gas = 6.0 lbs/gal (2.72 kg) (1 liter = 1.6 lbs or .719 kg) (Av Gas = 6 lbs/gal @ +20°F = 6.3 lbs/gal @ -40°F = 5.56 lbs/gal @ +104°F) 50W Oil = 7.5 lbs/gal (1.875 lbs/qt = 1.981 lbs/liter) Jet A = 6.75 lbs/gal (3.06 kg) (1 liter = 1.8 lbs or .8 kg) Kerosene = 6.75 lbs/gal Prop Alcohol = 6.8 lbs/gal 5606 Hydraulic Fluid = 7.2 lbs/gal Water = 8.33 lbs/gal Methanol = 6.62 lbs/gal
U.S. to METRIC	1 quart.....0.95 liter = 906 grams = .95L = 946ml 1 U.S. gallon3.7853 liters = 3624 grams 1 U.S. gallon0.83268 Imperial gallons 1 inch25.4 millimeters (mm) or 2.54 centimeters 1 foot.....0.3048 meters or 30.48 centimeters 1 yard.....0.9144 meters 1 Statute Mile1.6 kilometers (5280 feet) 1 Nautical Mile1.85 kilometers or 6076 feet 1 ounce28.35 Grams 1 pound.....0.45359 kilogram 1 horsepower.....0.75 kilowatt
METRIC to U.S.	1 liter0.26418 U.S. gallons (1.0567 qts) 1 Imperial gallon1.2 U.S. gallons 1 millimeter0.04 inch 1 centimeter.....0.39 inch 1 meter.....3.2808 feet or 39.37 inches or 1.0936 yds 1 kilometer.....0.62 SM or 0.54 NM or 3281 feet 1 gram0.035 ounce 1 kilogram.....2.2046 pounds or 35.27396 ounces 1 kilowatt.....1.3 horsepower
METRIC to METRIC	1 centimeter.....10 millimeters 1 meter100 centimeters (1,000 millimeters) 1 kilometer1,000 meters 1 liter.....1,000 milliliters 1 kiloliter1,000 liters 1 gram1,000 milligrams 1 kilogram.....1,000 grams 1 metric ton.....1,000 kilograms

Gallons x 3.785 = Liters

Liters x .264 = Gallons