Trade Winds Aviation
POH Work Sheet

Name of Pilot _____

Name of CFI _____

I, the CFI, have reviewed this worksheet with the above pilot,_____
cfi signature

Date of Review _____

Section 1, General:

1. Give the following weights:

Maximum Take-off weight	
Maximum Landing weight	

Note: Weights may vary between models)

2. Define Standard empty weight.

_____

_____

3. What is the C-172's Standard Empty Weight? _____

4. Fuel Type(s) & Color(s)

_____

5. Fill in the following airspeed limitations (KIAS) and the operational significance.

	KIAS	Operational Significance
Vne		
Vno		
Va 2400 lbs 2000 lbs 1600 lbs		
Vfe Max. 10° 10° - 30°		

6. Fill in the KIAS range for each colored arc and explain its significance.

Airspeed Markings	Range KIAS	Significance
White Arc		
Green Arc		
Yellow Arc		
Red Line		

7. Give the following powerplant/engine operating limitations:

INSTRUMENT	**Minimum Limit** Red Line	**Normal Range** Green Arc	**Maximum Limit** Red Line
Tachometer Sea Level 5000 feet 10,000 feet			
Suction			
Oil Pressure			
Oil Temp.			
Fuel Quantity			

8. Is the C-172 a normal or utility category airplane?

_____

***Section 4, Normal Operations*:**

9. Give the following airspeeds:

Vx @ Sea Level=	Vx @ 10,000 ft.=
Vy @ Sea Level=	Vy @ 10,000 ft.=
Normal Climb Out=	
Normal Approach/Flaps 0°=	Normal Approach/Flaps 30°=
Short Field Takeoff (Flaps 0°)=	Short Field Approach (Flaps 30°)=
Enroute climb @ Sea Level=	Enroute climb @ 10,000 feet=

10. The maximum demonstrated cross-wind velocity is _____ for takeoff and landing.

Pre-flight:

11. What number of fuel sumps need to be drained during pre-flight? _____

Run-up:

12. Magnetos:
What is the maximum allowable RPM drop? _____
What is the maximum differential between Magnetos drops? _____

Section 7, Airplane & Systems Descriptions:

Flaps:

13. What type of flaps are on this airplane? _____

14. The wing flap system circuit is protected by a _____(rating) amp circuit breaker.

Landing Gear:

15. What type of landing rear is on the C-172? (Circle two)

Tricycle Conventional
Retractable Fixed

16. Give the following tire pressure:

Nose Wheel	
Main Wheels	

(Hint, you will find this answer in the Handling, Service and Maintenance section of your hand book)

17. What type of shock absorption is used on the nose gear?

_____

18. What type of shock absorption is used on the main gear?

_____

19. What type of brakes are on the main gear?

_____

Engine:

20. Give the following engine information.

Engine Type and Identification
Rated horse power @ 2700 RPM
Number of Cylinders
Cylinder Arrangement?
Type of engine cooling

21. Is this airplane equipped with a carburetor?
(Circle one) YES NO

22. What are the major engine accessories?

1.) _____
2.) _____
3.) _____
4.) _____
5.) _____

23. What type of propeller is on the C-172? _____

Oil:

24. Oil Capacity:
Maximum _____ and Minimum _____

25. How is the oil pressure gauge powered/operated?

_____

26. How is the oil temperature powered/operated?:

_____

Fuel System:

27. By what method is the fuel fed to the engine?
    Circle answer(s):
    a. Gravity feed
    b. Engine driven fuel pump
    c. Electric fuel pump

28. Is there a back-up fuel pump on the C-172?
    (Circle one) YES NO

29. The fuel system is vented. Why is it essential that the fuel venting system be free of blockage? _____

_____

_____

30. How are the fuel gauges operated/powered? _____

31. Fill in fuel quantities:

	Useable Fuel	Unusable Fuel
Standard Tanks		
Long Range Tanks		

Electrical:

32. The C-172 is equipped with a _____ volt electrical system.

33. Is this system AC or DC? _____

34. What voltage is the battery? _____

Master switch:

35. Is the primary electrical bus energized any time the master switch is on?
(Circle one) YES NO

36. The primary bus in not affected by starter or external power usage?
(Circle one) YES NO

Avionics Master:

37. For each of the following conditions in what position should the Avionics Master be when:

	Circle One	
-turning the master switch on or off	ON	OFF
-when starting the engine	ON	OFF
-when applying an external power source	ON	OFF

38. What should you do if the avionics master circuit breaker trips?

_____

_____

39. What do you do if you reset the breaker and it trips again?

_____

_____

Ammeter:

40. What two indications may this instrument display?

1.)_____

2.)_____

41. When does it indicate a charging rate?

_____

_____

42. When does it indicate a battery discharge rate?

_____

_____

43. What will happen if an over voltage condition occurs?

_____

_____

44. Will you receive a visual indication under these conditions and if so what will be the indications? _____

_____

45. Can you reset the alternator control unit and if so how?

_____

_____

46. Are there any times the low voltage light illuminates and no malfunction has occurred and if so when?

_____

_____

47. How would you test the low voltage warning light?

_____

_____

48. Are you required to carry spare fuses? _____

Vacuum System & Instruments:

49. Which 2 gyro instruments are operated/powered from an engine driven vacuum pump?
    1. _____
    2. _____

Note: Some C-172's do have an electrically-driven standby vacuum pump.

50. What gauge will indicate that the engine driven vacuum pump is working properly or malfunctioning ?

_____

51. What is the desired range on the suction gauge? _____

52. If the suction gauge is reading below or above normal which 2 instruments should you consider unreliable?
    1. _____
    2. _____

53. What would illumination of the low-vacuum light signify?

_____

54. How is the turn-coordinator powered? _____

Section 3, Emergency Procedures:

55. If an engine failure occurs after take-off what are the desired airspeeds for the following conditions?

Flaps Up	KIAS
Flaps Down	KIAS

56. Define maneuvering speed?

_____

_____

57. What is the maximum glide speed? _____ KIAS

58. What are the airspeeds for precautionary landing with engine power?

Flaps Up	KIAS
Flaps Down	KIAS

59. For any type of emergency landing procedure why is it a good idea to open the cab doors before touch down?

_____

_____

_____

60. What should you do if the ammeter shows an excessive charge rate?

_____

_____

_____

_____

61. What should you do, if anything, if the low voltage light illuminates during a low RPM taxi?

_____

_____

_____

62. What should you do if the ammeter shows an excessive discharge rate?

_____

_____

_____

_____

63. During an engine failure emergency landing procedure what airspeed should your pitch for? _____ KIAS

64. At the above airspeed, in a no wind condition, how many mile(s) will you travel for each 1,000 foot descent? _____

65. If you were forced to land without elevator control how would you control pitch and the descent? _____

_____

_____

_____

_____

66. What is the emergency radio frequency? _____

67. What is the emergency transponder code? _____

68. What are the indications that you may have carburetor ice?

_____

_____

69. What should you do if you suspect you have carburetor ice?

_____

_____

_____

70. A loss of oil pressure is accompanied by a(n) INCREASE or DECREASE in oil temperature. (Circle one)

71. If your oil pressure gage has a below normal indication but the oil temperature is within the normal range what might be the explanation for this situation?

_____

_____