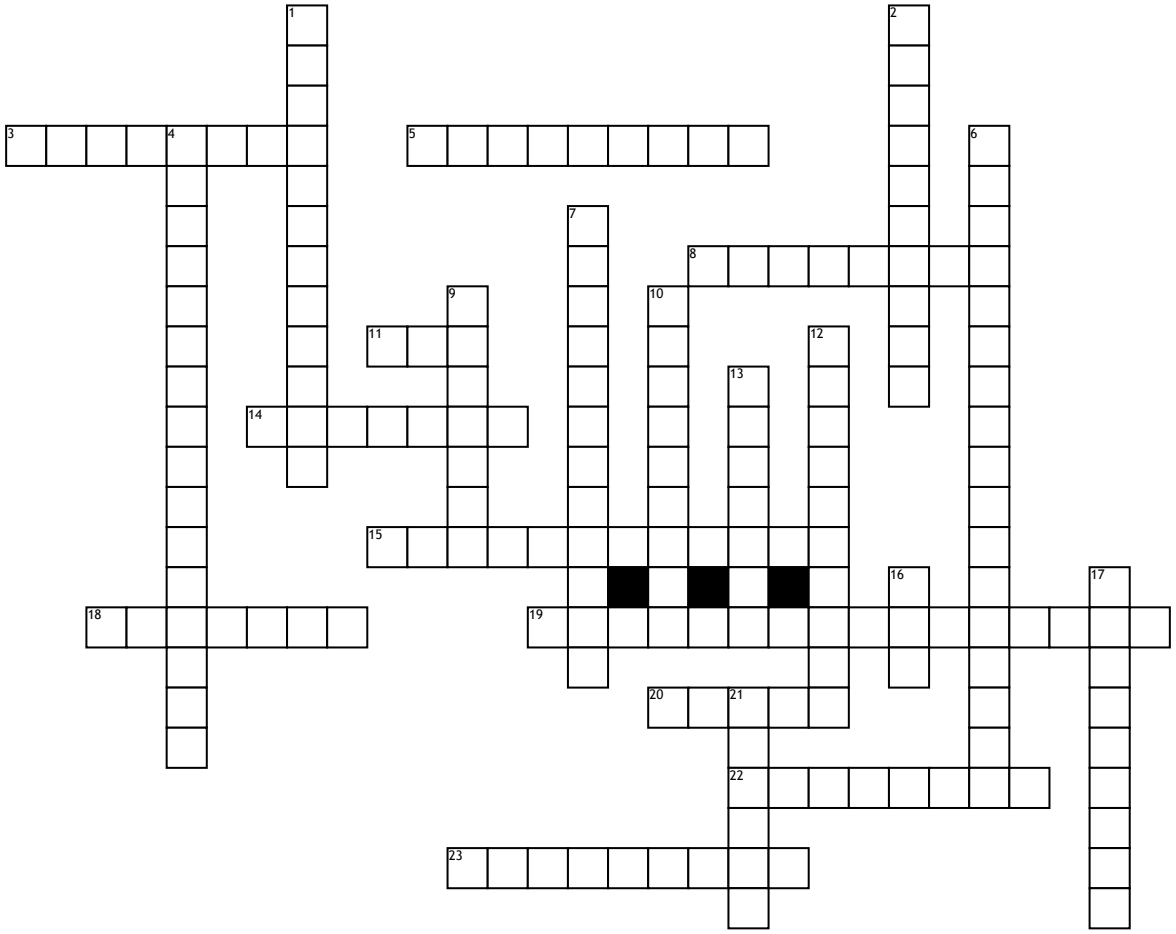
Name: _____ Date: _____

PT6 Engine Familiarization



Across

3. The Gas Generator Case forms the main structural component of the engine and provides attachment points for installation to the _____.
5. Forms the envelope which changes the direction of the combusted gas flow 180 degrees for delivery to the compressor turbine vane ring.
8. _____ tubes are components of the Gas Generator case that further increases air pressure.
11. How many bearings support the major rotating assemblies.
14. What type of combustion chamber does the PT6 engine Have?
15. _____ temperature (T5) is monitored by a cold junction thermocouple system.
18. Compressor turbine blades are retained by this type of serrations.
19. 7.7:1
20. The assembly that rotates within the stator assembly
22. Wash that removes deposits of dirt and restores compressor efficiency.
23. Constructed from a magnesium or aluminum casting

Down

1. The shaft that is supported by the #1 (ball) and #2 (roller) bearing.
2. Increases the pressure of the incoming air and delivers it to the combustion section.
4. Reduces the power turbine speed to a speed suitable for propeller operation.
6. Protects the engine from ingesting foreign objects
7. _____ wash that removes salt and chemical deposits from the compressor to prevent corrosion.
9. "A" flange attaches the RGB front and rear housings to this case.
10. PT6 engine is considered this type of engine.
12. 3 axial stages and 1 centrifugal stage.
13. Extracts 2/3 of the combusted gas energy to drive the compressor rotor.
16. Acronym for the component that prevents compressor stalls below 91% Ng by expelling excess P2.5 compressor air.
17. Guides P3 cooling air to the aft face of the Compressor Turbine assembly and Compressor Turbine Blade roots
21. Ball bearings absorb _____ loads.