

Lambda Activity

Meets NATEF Task: (A8-B-5) Inspect and test sensors, actuators, and circuits using a graphing multimeter (GMM)/digital storage oscilloscope (DSO); perform necessary action. (P-1)

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

_____ 1. Check service information for the specified air-fuel ratio (lambda) for the specific vehicle being tested.

_____ 2. Connect a scan tool and determine the desired or commanded air-fuel ratio (lambda).



_____ 3. Is the commanded or desired air-fuel ratio richer or leaner than stoichiometric?

_____ richer

_____ leaner

_____ 4. Determine the air-fuel ratio for the following lambda numbers:

Leaner than 14.7:1 – lambda 1.221 X 14.7 = _____

– lambda 1.101 X 14.7 = _____

Richer than 14.7:1 – lambda 0.989 X 14.7 = _____

– lambda 0.890 X 14.7 = _____

_____ 5. Based on the test results, what is the interpretation of the commanded lambda?
