Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

**Meets ASE Task:** (A1-D-3) P-1 Perform cooling system pressure and dye tests to identify leaks; check coolant condition and level; inspect and test radiator, pressure cap, coolant recovery tank, heater core, gallery plugs; determine needed action.

**Radiator Testing with an Infrared Pyrometer**

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**[ ]  1.** Check to see if an infrared pyrometer can be aimed to most areas of the radiator from

 the engine side.

 **NOTE:** The fan(s) shroud may have to be removed to gain access.

**[ ]  2.** What had to be removed to allow access? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**[ ]  3.** Start the engine and operate until normal operating temperature is achieved and the

 thermostat is fully open.

**[ ]  4.** Using an infrared pyrometer, measure the radiator at the inlet, middle, and outlet

 sections and record the readings.

 Inlet = \_\_\_\_\_\_\_\_\_\_ (should be the hottest)

 Middle = \_\_\_\_\_\_\_\_\_\_ (should be cooler than the inlet section)

 Outlet = \_\_\_\_\_\_\_\_\_\_ (should be cooler than the middle)

 **OK [ ]  NOT OK [ ]**

**[ ]  5.** Aim the infrared pyrometer to all sections of the radiator and look for any areas that

 are cooler than the surroundings which indicate a restricted or clogged portion of the

 radiator.

 **OK [ ]  NOT OK [ ]**

**[ ]  6.** Reinstall any shrouds removed to gain access to the radiator.

**[ ]  7.** Based on the inspection and temperature tests, what is the necessary action?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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