

**► TASK** Demonstrate the use of the 3 Cs (concern, cause, and correction).

**Additional Task**

Time off \_\_\_\_\_

Time on \_\_\_\_\_

Total time \_\_\_\_\_

**CDX Tasksheet Number: N/A**

1. Using the following scenario, write up the 3 Cs as listed on most repair orders. Assume that the customer authorized the recommended repairs.

An 8-year-old vehicle has been brought to your shop with an engine repair concern. The customer tells you that the vehicle runs rough at all speeds and conditions, and has gotten worse over the past couple of weeks. The malfunction indicator lamp (MIL) is blinking when the engine is running. The customer thought the malfunction was due to bad gas; he ran the tank out and refilled it with good gas from a very reputable station, but the car still runs rough after using half of a tank. The customer authorizes your shop to perform a diagnosis and you find the following:

- a. The vehicle is about 8 years old and has nearly 165,000 miles on it, but is in good overall condition.
- b. There is a diagnostic trouble code P0303, which indicates an engine misfire on cylinder #3.
- c. All of the spark plugs are moderately worn and show signs of moderate oil fouling, and the spark plug wires are original.
- d. Cylinder compression is about 25 psi on cylinder #3. The other cylinders are within specifications, but on the low side.
- e. A cylinder leakage test shows 85% leakage on cylinder #3 past the exhaust valve. The other cylinders show about 25% leakage past the piston rings.
- f. The engine mounts are oil-soaked due to a leaking valve cover and oil pan gaskets.
- g. The rear main seal shows signs of significant leakage.
- h. The oil light sometimes flickers when the engine is fully warmed up and idling, even though the oil is near the full mark.
- i. The radiator has a small coolant leak in the core.

**NOTE** Ask your instructor whether you should use a copy of the shop repair order or the 3 Cs in this manual to record this information.

**2. Concern:**

**3. Cause:**

**4. Correction:**

**5. Other recommended service:**

**6.** Have your supervisor/instructor verify satisfactory completion of this procedure, any observations found, and any necessary action(s) recommended.

**Performance Rating**

**CDX Tasksheet Number: N/A**

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**0**

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**1**

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**2**

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**3**

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**4**

Supervisor/instructor signature \_\_\_\_\_ Date \_\_\_\_\_