# Orange Auto Part Manufacturer (7)

Based on the success of her previous two simulation models, the plant manager at the OAPM has decided to add even greater detail to the model. The plant manager has requested that *different processing times* for the two parts be used in the preparation process and that the model use *different inspection pass rates* for each part type.

In the original model, both part types required the same amount of preparation time and both parts had the same inspection pass rate. In reality, the preparation and the inspection rate are dependent on the type of part being processed. An intern was assigned to perform a time study on the preparation process and found that the actual process times for each part type follow the distributions shown below:

Wheel Hub TRIA(2,3,5) minutes

Brake Rotor TRIA(4,5,8) minutes

The intern also found that the inspection pass rate for wheel hub was 95% and the rate for brake rotor was 85%.

In addition to these changes, the manager would like to know the *average cycle time* for all parts passing inspection and wants the model to *track* the number of parts passing and failing inspection by part type.

Run the model for five 8-hour days. The base time units should be minutes.  
Examine part cycle-time statistics, number in queue statistics, resource utilization statistics, and the user-defined statistics.