Wheel Offset
Wheel offset describes the distance that the hub mounting face of a wheel is offset from the wheel's centerline. A positive offset is when the mounting face is outside of the wheel centerline. Negative offset is the opposite, with the mounting face inside of the wheel centerline. See example of a positive offset wheel below:

Speed Rating Identification
The speed rating of a tire is the maximum speed that it is safely capable of sustaining for extended periods. This is denoted by a letter code, which will appear on the tire sidewall in one of three ways:

- 205/60 HR–14
- 205/60 HR–14 89H
- 205/60 R–14 89H

The rating code is as follows:

- Q = 100 MPH
- H = 130 MPH
- S = 112 MPH
- V = 149 MPH
- T = 118 MPH
- Z = 149+ MPH
- U = 124 MPH

“R” refers to radial construction. “89” is a load rating index.

Calculating Overall Tire Diameter
With this formula you can figure out how to fit a wider, lower profile tire with little change in overall diameter. Thus you can improve grip while retaining speedometer accuracy.

The formula for overall tire diameter is:

\[
\text{Overall Tire Diameter} = \left( \frac{\text{Cross section width} \times \text{Aspect ratio}}{25.4} \right) \times \text{Wheel Diameter} + \text{Wheel Diameter}
\]

As an example, let’s use the original tire size on a Giulietta: 155/78 – 15.

- 155 Approximate cross section width in millimeters.
- 78 Aspect ratio which is converted to “0.78”
- 15 Wheel diameter in inches.

\[
\frac{(155 \times 0.78) \times 2}{25.4} + 15 = 24.52”
\]

The tire size we would like to use is 185/65 – 15. If we plug in the new tire size into our formula, we get:

\[
\frac{(185 \times 0.65) \times 2}{25.4} + 15 = 24.47”
\]

These two diameters are very close, so speedometer accuracy and final drive ratio would be unchanged by changing from a 155/78 – 15 to a 185/65 – 15 but the tire contact patch would be much enlarged for improved handling and braking.