



# BMW E46 Gear Ratio / Cruising RPM calculator

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## Gear Ratio Calculator

This calculator is for finding your maximum speed for each gear. You can either enter the values manually or use the presets on the right. The presets on the right only change the Transmission Ratios, Final Drive Ratio and Engine Redline for the specific models. You you need to enter in your tire size, the E46 Profiles do not change it. These are specifications for US cars only. Other countries have different ratios for the same car. This will also calculate your highway cruising engine RPMs for a given speed.

**Wheel Size**

Tire Width (in mm) [Example: (225 / 45 - 17)]

Tire Aspect Ratio [Example: (225 / 45 - 17)]

Wheel Size (in inches) [Example: (225 / 45 - 17)]

**Transmission Ratios**

1st Gear

2nd Gear

3rd Gear

4th Gear

5th Gear

6th Gear

**Final Drive Ratio**

**Engine Redline RPM**

**Max Speed in each Gear**

Max Speed in 1st Gear

Max Speed in 2nd Gear

Max Speed in 3rd Gear

Max Speed in 4th Gear

Max Speed in 5th Gear

Max Speed in 6th Gear

**Calculate your RPMs based upon your Cruising Speed**

Cruising Speed (Enter speed you drive on the HWY)  MPH

Engine RPM at Cruising Speed  RPM

**Select an E46 Profile.** Clicking on the model changes the Transmission Ratio, Final Drive Ratio and the Engine Redline (Does not update Tire Size)

- Default Manual Gear Ratios**
- 

- Default Automatic Gear Ratios**
- 

- Tire Sizes**
- 

- Select Different Final Drive**
- E46 Ratios (non M3)
- 

- E46 M3 Ratios \* 3.91 and 4.10 are aftermarket
- 

- Select Different Redline**
- 

\* These results are based on mathematical formulas. Your actual speed may vary. Top speeds are theoretical. I am not responsible for any inaccuracies provided in these calculations. They are only provided for entertainment / informational purposes.

[E-mail me questions / comments / or corrections to my info.](#)