Gear Ratio / Tire Size Table

Good "rule of thumb" calculation is to multiply .12 by your tire diameter. (.12 X 38" = 4.56) (see more formulas at bottom of page)

The below table can be used to get a rough idea on gear ratios. The colors represent ideal RPM's at highway speeds (65). For highway cruising and best fuel economy stay towards the “Yellow” (2600 rpm), around town daily driving is color coded “Green” (2800 rpm), and for better towing power or just more 4-low power use the ratios near the “Red” (3100 rpm). These calculations are assuming a manual transmission with a 1:1 ratio. If you drive an automatic your RPMs will be higher, and the opposite is true if you have overdrive (your RPMs will be lower).

Better Gas Mileage	Close to Factory Ratio	More Power

Gear Ratio

Tire Diameter	3.31	3.42	3.55	3.73	3.91	4.11	4.27	4.56	4.88	5.13	5.29	5.38	5.71	6.17	7.17
27"	2677	2766	2872	3017	3163	3325	3454	3689	3947	4150	4279	4352	4619	4991	5800
28"	2582	2668	2769	2909	3050	3206	3331	3557	3806	4001	4126	4196	4454	4813	5593
29"	2493	2576	2674	2809	2945	3095	3216	3434	3675	3863	3984	4052	4300	4647	5400
30"	2410	2490	2584	2715	2846	2992	3109	3320	3553	3735	3851	3917	4157	4492	5220
31"	2332	2409	2501	2628	2755	2896	3008	3213	3838	3614	3727	3790	4023	4347	5051
32"	2259	2334	2423	2546	2696	2805	2914	3112	3331	3501	3610	3672	3897	4211	4894
33"	2191	2263	2349	2469	2588	2720	2826	3018	3230	3395	3501	3561	3779	4093	4745
34"	2126	2197	2280	2396	2512	2640	2743	2929	3135	3295	3398	3456	3668	3963	4606
35"	2065	2134	2215	2328	2440	2565	2664	2845	3045	3201	3301	3357	3563	3850	4474
36"	2008	2075	2154	2263	2372	2493	2590	2766	2961	3112	3209	3264	3464	3743	4350
37"	1954	2019	2095	2203	2308	2426	2520	2692	2881	3028	3123	3176	3370	3642	4243
38"	1902	1966	2040	2144	2247	2362	2454	2621	2805	2948	3040	3092	3282	3546	4121

39"	1854	1915	1988	2089	2190	2302	2391	2554	2733	2873	2962	3013	3198	3455	4015
40"	1807	1867	1938	2037	2135	2244	2331	2490	2664	2801	2888	2937	3118	3369	3915
41"	1763	1822	1891	1987	2083	2189	2275	2429	2599	2733	2818	2866	3042	3287	3819
42"	1721	1778	1846	1940	2033	2137	2220	2371	2538	2668	2751	2798	2969	3208	3728
43"	1681	1737	1803	1894	1986	2087	2169	2316	2479	2606	2687	2733	2900	3134	3642
44"	1643	1698	1762	1851	1941	2040	2119	2263	2422	2546	2626	2670	2834	3063	3559

Here are some common gear formulas:

Gear Ratio:
(RPM x Tire Diameter) / (Trans Ratio x Transf Case Ratio x Axle Ratio x 336) = MPH

Crawl Ratio:
Trans Ratio x Transf Case Ratio x Axle Ratio = Crawl Ratio

P-Metric to Inch Diameter:
(Section Width x Aspect Ratio x 2 / 25.4) + Rim Diameter = Tire Diameter

Tire Change (find new gear ratio):
(New Tire Diameter / Old Tire Diameter) x Old Axle Ratio = New Axle Ratio

Speedometer adjuster (with oversize tires):
(New Tire Diameter / Old Tire Diameter) x Speedometer MPH = Actual MPH

Simple Gear Ratio Formula:
Ring Gear Teeth Count / Pinion Gear Teeth = Gear Ratio