

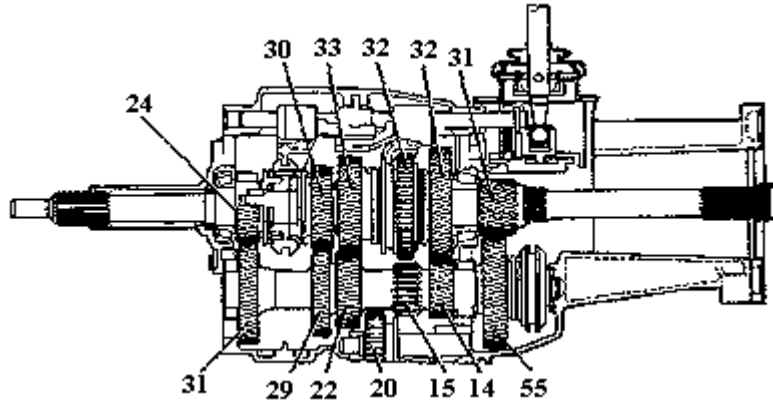
Transmission gear ratio

Student Name _____

KEY

Date _____

The tooth counts are given for each of the gears of this T5, 5-speed transmission. Calculate the ratio for each of the gear sets and the overall ratios for each gear range.

**GEAR SET RATIOS:**Main drive gear to cluster: $31/24 = 1.29:1$ 1st gear cluster to 1st speed gear: $32/24 = 2.28:1$ 2nd gear cluster to 2nd speed gear: $33/22 = 1.5:1$ 3rd gear cluster to 3rd speed gear: $30/29 = 1.03:1$ 5th gear cluster to 5th speed gear: $31/51 = 0.6:1$ Reverse gear cluster to reverse driven gear: $32/15 = 2.13:1$ **OVERALL RATIOS:** 1st gear: $1.29 \times 2.28 = 2.94:1$ 2nd gear: $1.29 \times 1.5 = 1.93:1$ 3rd gear: $1.29 \times 1.03 = 1.33:1$ 4th gear: $1:1$ 5th gear: $1.29 \times 0.6 = 0.77:1$ Reverse: $1.29 \times 2.13 = 2.75:1$