MECH 343 Theory of Machines I

Time: _ _ W _ _17:45 - 20:15

Lecture 9

Example

Two parallel shafts with 3.5in between them are to be connected by Gears with output shaft rotating 40% of the input shaft

Center distance $R_2 + R_3 = 3.5$in
Gear Ratio $R_2/R_3 = 0.4$
Solving for the pitch radii, R_2 & R_3

We get $R_3 = 2.5"$ and $R_2 = 1"$

From the pitch radii of the gear and pinion, knowing the
DP or the module of the gearset, we can find the # of teeth.