

Homework #6

Due: 3/26/18

1. (20) Make a table comparing the types of chips (continuous, built-up edge, serrated, and discontinuous) versus material properties, showing differences in material properties for each type of chip formation. Make another row/column to list the advantages or disadvantages of each type of chip formation.
2. (20) Text questions 8.9.
3. (20) Text questions 8.81.
4. (20) Text question 8.117.
5. (20) A 300 mm long, 100 mm diameter titanium alloy rod is being reduced in diameter to 95 mm by turning in a lathe. The spindle rotates at 400 rpm and the tool is traveling at an axial speed of 250 mm/min. Calculate the cutting speed, material removal rate, time of cut, power required, and the cutting force.