

**Today:** Synthesis; FPTAS for *Subset-Sum*. §§ 35.\*.

**Next class:** Portfolio presentations 2.

**Reminders:** Use the class newsgroup.

1. List the members of your group below. Underline your name.
2. Trace the execution of the textbook's EXACT-SUBSET-SUM algorithm (p. 1129), by enumerating the  $L_i$  lists it computes (after the pruning step), on the following instance:

$$\begin{aligned} S &= \{100, 103, 107, 109, 120, 135, 142, 163, 184, 203, 271\} \\ t &= 200 \end{aligned}$$

3. Repeat Question 2 using the textbook's APPROX-SUBSET-SUM FPTAS with  $\epsilon = 0.66$ .

$$\begin{aligned} S &= \{100, 103, 107, 109, 120, 135, 142, 163, 184, 203, 271\} \\ t &= 200 \end{aligned}$$

4. (informal homework) If the solution computed in Question 3 equals the one in Question 2 then determine the smallest change to the set  $S$  that would result in a different solution; else determine the smallest change that would result in the same solution.