

KSU – Chemical Engineering Department
ChE 418 (Chemical Plant Economics and Safety) – TUT #6 (Economics)

Name:

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1. The purchased cost of a 40 m² equipment in 1990 is \$9650. What is the purchased cost of a 100 m² in 2000, knowing that the capacity index is 0.81 in the range 40- 200 m². Use Marshal and Swift index.

2. The purchased cost of a steel tank in 1995 is \$10900. The entire surface (16 m²) is to be covered with an insulation. The cost of insulation and labor in 1995 is \$140/m². Estimate the total cost in 2000.

3. The purchased cost of a solid-fluid processing plant is \$300000. The plant is to be an addition to an existing plant. The building cost is 18% of the fixed capital cost, and the contractor's fee is 7% of the direct plant cost. Estimate the total direct plant cost, the fixed capital investment, and the total capital investment.