

Week 6 Part 2 Chapter 16

- #1. The Aluminum Can Company has 200,000 obsolete cans in inventory at a cost of \$10,000. The cans can be cut in half to make candle holders for \$2,000. The candle holders can be sold for \$3,500 in total. If the cans are scrapped, they could be sold for \$900.

Which alternative should the Aluminum Can Company accept and what is the relevant profit from the alternative?

- #2. Cari manufactures a unit called Y2. Variable manufacturing costs per unit of Y2 are as follows:

| | |
|---------------------------------|------|
| Direct materials | \$2 |
| Direct labor | \$20 |
| Variable manufacturing overhead | \$10 |

The Nick Company has offered to sell Cari 10,000 units of Y2 for \$44 per unit. If Cari accepts the offer, \$140,000 of fixed manufacturing overhead will be eliminated.

Applying differential analysis to the situation, what should Cari do?

- #3. Northern Production Company has 200 labor-hours available. There is no limit on machine-hours. Northern can sell all of Y it wants, but it can only sell 45 units and 20 units of X and Z, respectively.

| | <u>Product X</u> | <u>Product Y</u> | <u>Product Z</u> |
|------------------------------|------------------|------------------|------------------|
| Contribution margin per unit | \$30 | \$20 | \$24 |
| Labor-hours per unit | 4 | 5 | 4 |
| Machine-hours per unit | 10 | 8 | 2 |

What is the contribution margin per labor-hour for product Y?

- #4. The Kirsten Company uses a joint process to produce products A, B, C, and D. Each product may be sold at its split-off point or processed further. Joint processing costs for a single batch of joint products are \$65,000. Other relevant data are as follows:

| <u>Product</u> | <u>Sales Value At Split-Off</u> | <u>Additional Costs of Processing</u> | <u>Sales Value of Final Product</u> |
|----------------|---------------------------------|---------------------------------------|-------------------------------------|
| A | \$15,000 | \$18,000 | \$ 45,000 |
| B | 27,000 | 15,000 | 40,000 |
| C | 20,000 | 25,000 | 30,000 |
| D | <u>13,000</u> | <u>11,000</u> | <u>25,000</u> |
| | <u>\$75,000</u> | <u>\$69,000</u> | <u>\$140,000</u> |

Calculate the effect on profits of processing Product A further beyond the split-off point.

- #5. A limitation of 3,000 machine-hours per week prevents Manhattan Manufacturing Company from meeting the sales demands for its products. The product information is as follows:

| | <u>R1</u> | <u>R2</u> | <u>R3</u> | <u>R4</u> |
|--------------------------|--------------|--------------|--------------|--------------|
| Unit selling price | \$900 | \$600 | \$350 | \$600 |
| Unit variable costs | <u>- 600</u> | <u>- 250</u> | <u>- 200</u> | <u>- 300</u> |
| Unit contribution margin | \$300 | \$350 | \$150 | \$300 |
| Machine-hours per unit | 20 | 20 | 20 | 30 |

Assuming unlimited demand for each product, determine what is the best short-run profit maximizing strategy?