

## Assignment to 6.2

$$p_A := 98$$

$$dmc_A := 30$$

$$dlc_A := 10$$

$$spc_A := 0$$

$$t1_A := 6\text{min}$$

$$t2_A := 4\text{min}$$

$$t3_A := 4\text{min}$$

$$t4_A := 10\text{min}$$

$$xp_A := 2100$$

$$xs_A := 2100$$

$$p_B := 107$$

$$dmc_B := 32$$

$$dlc_B := 8$$

$$spc_B := 2$$

$$t1_B := 4\text{min}$$

$$t2_B := 2\text{min}$$

$$t3_B := 3\text{min}$$

$$t4_B := 8\text{min}$$

$$xp_B := 4000$$

$$xs_B := 3960$$

$$\text{IMCf} := 3820$$

$$\text{POH1f} := 28600$$

$$\text{POH2f} := 11480$$

$$\text{POH3f} := 27540$$

$$\text{POH4f} := 10600$$

$$\text{ACf} := 76326$$

$$\text{SCf} := 114489$$

$$\text{DMC} := dmc_A \cdot xp_A + dmc_B \cdot xp_B$$

$$\text{DMC} =$$

$$\text{IMCv} := 0.03 \cdot \text{DMC}$$

$$\text{IMCv} =$$

$$\text{poh1v} := 0.5\text{min}^{-1}$$

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$$\text{poh2v} := 0.3 \text{min}^{-1}$$

$$\text{poh3v} := 0.45 \text{min}^{-1}$$

$$\text{poh4v} := 0.3 \text{min}^{-1}$$

$$\text{POH1v} := \text{poh1v} \cdot t1_A \cdot xp_A + \text{poh1v} \cdot t1_B \cdot xp_B$$

$$\text{POH1v} =$$

$$\text{POH2v} := \text{poh2v} \cdot t2_A \cdot xp_A + \text{poh2v} \cdot t2_B \cdot xp_B$$

$$\text{POH2v} =$$

$$\text{POH3v} := \text{poh3v} \cdot t3_A \cdot xp_A + \text{poh3v} \cdot t3_B \cdot xp_B$$

$$\text{POH3v} =$$

$$\text{POH4v} := \text{poh4v} \cdot t4_A \cdot xp_A + \text{poh4v} \cdot t4_B \cdot xp_B$$

$$\text{POH4v} =$$

$$\text{imc}_A := \frac{\text{IMCv}}{\text{DMC}} \cdot \text{dmc}_A$$

$$\text{imc}_B := \frac{\text{IMCv}}{\text{DMC}} \cdot \text{dmc}_B$$

$$\text{imc}_A =$$

$$\text{imc}_B =$$

$$\text{poh1}_A := \frac{\text{POH1v}}{t1_A \cdot xp_A + t1_B \cdot xp_B} \cdot t1_A$$

$$\text{poh1}_B := \frac{\text{POH1v}}{t1_A \cdot xp_A + t1_B \cdot xp_B} \cdot t1_B$$

$$\text{poh1}_A =$$

$$\text{poh1}_B =$$

$$\text{poh2}_A := \frac{\text{POH2v}}{t2_A \cdot xp_A + t2_B \cdot xp_B} \cdot t2_A$$

$$\text{poh2}_B := \frac{\text{POH2v}}{t2_A \cdot xp_A + t2_B \cdot xp_B} \cdot t2_B$$

$$\text{poh2}_A =$$

$$\text{poh2}_B =$$

$$\text{poh3}_A := \frac{\text{POH3v}}{t3_A \cdot xp_A + t3_B \cdot xp_B} \cdot t3_A$$

$$\text{poh3}_B := \frac{\text{POH3v}}{t3_A \cdot xp_A + t3_B \cdot xp_B} \cdot t3_B$$

$$\text{poh3}_A =$$

$$\text{poh3}_B =$$

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$$\text{poh4}_A := \frac{\text{POH4v}}{t4_A \cdot xp_A + t4_B \cdot xp_B} \cdot t4_A$$

$$\text{poh4}_B := \frac{\text{POH4v}}{t4_A \cdot xp_A + t4_B \cdot xp_B} \cdot t4_B$$

$$\text{poh4}_A =$$

$$\text{poh4}_B =$$

$$\text{mc}_A := \text{dmc}_A + \text{imc}_A + \text{dlc}_A + \text{poh1}_A + \text{poh2}_A + \text{poh3}_A + \text{poh4}_A + \text{spc}_A$$

$$\text{mc}_B := \text{dmc}_B + \text{imc}_B + \text{dlc}_B + \text{poh1}_B + \text{poh2}_B + \text{poh3}_B + \text{poh4}_B + \text{spc}_B$$

$$\text{mc}_A =$$

$$\text{mc}_B =$$

$$\text{MCOGS}_A := \text{mc}_A \cdot xs_A$$

$$\text{MCOGS}_B := \text{mc}_B \cdot xs_B$$

$$\text{MCOGS}_A =$$

$$\text{MCOGS}_B =$$

$$\text{MCOGS} := \text{MCOGS}_A + \text{MCOGS}_B$$

$$\text{MCOGS} =$$

$$\text{ACv} := 0 \cdot \text{MCOGS}$$

$$\text{SCv} := 0 \cdot \text{MCOGS}$$

$$\text{ac}_A := \frac{\text{ACv}}{\text{MCOGS}} \cdot \text{mc}_A$$

$$\text{ac}_B := \frac{\text{ACv}}{\text{MCOGS}} \cdot \text{mc}_B$$

$$\text{ac}_A =$$

$$\text{ac}_B =$$

$$\text{sc}_A := \frac{\text{SCv}}{\text{MCOGS}} \cdot \text{mc}_A$$

$$\text{sc}_B := \frac{\text{SCv}}{\text{MCOGS}} \cdot \text{mc}_B$$

$$\text{sc}_A =$$

$$\text{sc}_B =$$

$$\text{tc}_A := \text{mc}_A + \text{ac}_A + \text{sc}_A$$

$$\text{tc}_B := \text{mc}_B + \text{ac}_B + \text{sc}_B$$

$$\text{tc}_A =$$

$$\text{tc}_B =$$

$$\text{cm}_A := p_A - \text{tc}_A$$

$$\text{cm}_B := p_B - \text{tc}_B$$

$$\text{cm}_A =$$

$$\text{cm}_B =$$

Cost-of-sales results accounting

$$\text{CM}_A := \text{cm}_A \cdot xs_A$$

$$\text{CM}_B := \text{cm}_B \cdot xs_B$$

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$$CM_A =$$

$$CM_B =$$

$$CM := CM_A + CM_B$$

$$CM =$$

$$Cf := IMCf + POH1f + POH2f + POH3f + POH4f + ACf + SCf$$

$$Cf =$$

$$R := CM - Cf$$

$$R =$$

Total cost results accounting

$$S_A := p_A \cdot x_{S_A}$$

$$S_B := p_B \cdot x_{S_B}$$

$$S_A =$$

$$S_B =$$

$$S := S_A + S_B$$

$$S =$$

$$IC_A := mc_A \cdot (xp_A - xs_A)$$

$$IC_B := mc_B \cdot (xp_B - xs_B)$$

$$IC_A =$$

$$IC_B =$$

$$IC := IC_A + IC_B$$

$$IC =$$

$$TP_A := S_A + IC_A$$

$$TP_B := S_B + IC_B$$

$$TP_A =$$

$$TP_B =$$

$$TP := TP_A + TP_B$$

$$TP =$$

$$MCOP_A := mc_A \cdot xp_A$$

$$MCOP_B := mc_B \cdot xp_B$$

$$MCOP_A =$$

$$MCOP_B =$$

## Assignment to 6.2

$$\text{MCOP} := \text{MCOP}_A + \text{MCOP}_B$$

$$\text{MCOP} =$$

$$\text{ACv}_A := \text{ac}_A \cdot \text{xs}_A$$

$$\text{ACv}_B := \text{ac}_B \cdot \text{xs}_B$$

$$\text{ACv}_A =$$

$$\text{ACv}_B =$$

$$\text{ACv} := \text{ACv}_A + \text{ACv}_B$$

$$\text{ACv} =$$

$$\text{SCv}_A := \text{sc}_A \cdot \text{xs}_A$$

$$\text{SCv}_B := \text{sc}_B \cdot \text{xs}_B$$

$$\text{SCv}_A =$$

$$\text{SCv}_B =$$

$$\text{SCv} := \text{SCv}_A + \text{SCv}_B$$

$$\text{SCv} =$$

$$\text{TCOP}_A := \text{MCOP}_A + \text{ACv}_A + \text{SCv}_A$$

$$\text{TCOP}_B := \text{MCOP}_B + \text{ACv}_B + \text{SCv}_B$$

$$\text{TCOP}_A =$$

$$\text{TCOP}_B =$$

$$\text{TCOP} := \text{TCOP}_A + \text{TCOP}_B$$

$$\text{TCOP} =$$

$$\text{CM}_A := \text{TP}_A - \text{TCOP}_A$$

$$\text{CM}_B := \text{TP}_B - \text{TCOP}_B$$

$$\text{CM}_A =$$

$$\text{CM}_B =$$

$$\text{CM} := \text{CM}_A + \text{CM}_B$$

$$\text{CM} =$$

$$\text{R} := \text{CM} - \text{Cf}$$

$$\text{R} =$$

## Assignment to 6.2

Legend:

Subscript A, B for products

p = Selling price

dmc = Direct cost of materials per unit

dlc = Direct cost of labour per unit

spc = Special direct production cost per unit

t1 = Production time in Direct Production Cost Centre 1 per unit

t2 = Production time in Direct Production Cost Centre 2 per unit

t3 = Production time in Direct Production Cost Centre 3 per unit

t4 = Production time in Direct Production Cost Centre 4 per unit

xp = Quantity of goods produced

xs = Quantity of goods sold

IMCf = Fixed indirect cost of materials

POH1f = Fixed production overhead 1 (in Direct Production Cost Centre 1)

POH2f = Fixed production overhead 2 (in Direct Production Cost Centre 2)

POH3f = Fixed production overhead 3 (in Direct Production Cost Centre 3)

POH4f = Fixed production overhead 4 (in Direct Production Cost Centre 4)

ACf = Fixed administration cost

SCf = Fixed sales cost

DMC = Direct cost of material

IMCv = Variable indirect cost of material

poh1v = Variable production overhead 1 (in Direct Production Cost Centre 1) per minute

poh2v = Variable production overhead 2 (in Direct Production Cost Centre 2) per minute

poh3v = Variable production overhead 3 (in Direct Production Cost Centre 3) per minute

poh4v = Variable production overhead 4 (in Direct Production Cost Centre 4) per minute

POH1v = Variable production overhead 1 (in Direct Production Cost Centre 1)

POH2v = Variable production overhead 2 (in Direct Production Cost Centre 2)

POH3v = Variable production overhead 3 (in Direct Production Cost Centre 3)

POH4v = Variable production overhead 4 (in Direct Production Cost Centre 4)

imc = Indirect cost of materials per unit

poh1 = Production overhead 1 per unit

poh2 = Production overhead 2 per unit

poh3 = Production overhead 3 per unit

poh4 = Production overhead 4 per unit

mc = Manufacturing cost per unit

MCOGS = Manufacturing cost of goods sold

ACv = Variable administration cost

SCv = Variable sales cost

ac = Administration cost per unit

sc = Sales cost per unit

tc = Total cost per unit

cm = Contribution margin per unit

CM = Contribution margin

Cf = Fixed cost

R = Result

S = Sales (value), turnover

IC = Change in inventory of finished goods

TP = Total performance

MCOP = Manufacturing cost of goods produced

TCOP = Total cost of goods produced