Eman Abdelhadi Alsaad

Chapter 4 Job Costing

- **Cost Pool** تجميع التكلفة
  - ↳ it's a grouping of individual indirect Cost items مجموعة من عناصر التكلفة غير المباشرة المفردية

→ Cost pools simplify the allocation of indirect Cost

↳ Because the Costing system does not have to allocate each Cost individually

لـ جعلت على تبسيط تخصيص التكاليف غير المباشرة لانه ليس من الضروري ان يقوم نظام التكاليف على تخصيص كل تكلفة على حدة

- **Cost-allocation base** اساس تخصيص التكلفة
  - ↳ a systematic way to link an indirect Cost or group of indirect Cost to a Cost object

لـ طريقة منهجية لربط التكلفة غير المباشرة او مجموعة التكاليف غير المباشرة بعناصر التكلفة

- **Job Costing** مجموعة وحدات التكلفة
  - ↳ Distinct identifiable units of a product or service, for example houses

وهي تكاليف انتاج وحدات متشابهة ومختلفة

- Job Costing
  - Different product with different manufactoring need

that means ↳ each job use a Different amount of resources

↳ كل وظيفة تستخدم كميات مختلفة من الموارد

☐ Process Costing system نظام تكاليف العملية

↳ The cost object is masses of identical or similar units of a product or service
هي عبارة عن كتل من وحدات متطابقة او متشابهة لمنتج او خدمة

→ in this system, we divide the total cost of producing an identical or similar product or service by the total number of unit produced to ~~obj~~ obtain ~~the total number~~
↳ a per unit cost
في هذا النظام نقوم التكلفة الاجمالية لانتاج منتج على اجمالي عدد الوحدات للحصول على تكلفة كل وحدة

$$\text{Per unit cost} = \frac{\text{Total Cost}}{\text{Total unit}}$$

Example =>

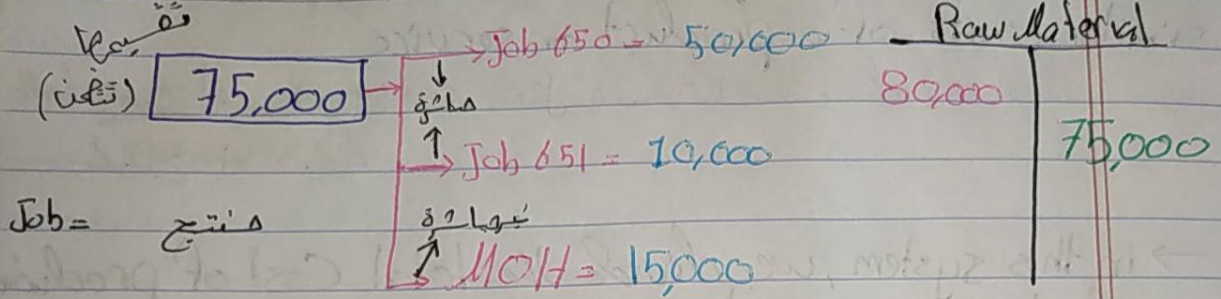
Transaction 1: Purchased worth of Material Cost 80,000 on account

entry→

Raw material	80,000	
Account payable		80,000

Raw material
80,000

Transaction 2: Material cost 75,000
sent to the Plant floor,



entry = work in process (650, 651) 60,000
Manufacturing over head 15,000
Raw material 75,000

MOH	
15,000	

WIP	
60,000	

- يعني ال Raw material لما انخفضت بـ 75,000 ما فين الى
WIP ① بقيمة 60,000 (Job 650, 651)
MOH ② بقيمة 15,000

Transaction 38 Total Manufactoring payroll = 27,000

27,000 → 19,000 Job 650
→ 3000 Job 651
→ 5,000 MOH

entry :

WIP Job 650,651	22,000	
MOH	5000	
wages payable		27,000

wages payable

	27,000

WIP

60,000	
22,000	

MOH

15,000	
5000	

Transaction 4 :- Machine Depreciation = 26,000
Other MOH = 33,100

entry:-

MOH	59,100	
Acc. Dep		26,000
Acc. payable		33,100

☐ Allocation of indirect Cost تخصيص التكاليف غير المباشرة

☐ Normal Costing التكلفة العادية

↳ allocates indirect cost based on the budgeted cost rates times the actual quantities of the cost allocation bases

لـ تخصيص التكاليف غير المباشرة بناءً على
لـ معدلات التكلفة غير المباشرة المحددة في الميزانية مضروبة في الكميات الفعلية لقاعدة تخصيص التكلفة

☐ First Compute the Rate per unit of each cost-Allocation base used to Allocate indirect Cost to the Job

أولاً لـ احتساب المعدل لكل قاعدة لتخصيص التكاليف المستخدمة لتخصيص التكاليف غير المباشرة

Budgeted Manufacturing overhead rate = Budgeted MOH Cost / Budgeted total Quantity of cost Allocation Base

second: Compute the indirect cost allocated to the job

Budgeted Allocation Base × Actual Base Activity For the job

معدل التخصيص بالميزانية × النشاط الأساسي الفعلي للوظيفة

□ Example : Assume that the Manufacturing Company budget 60,000 for total Manufacturing overhead Cost and 2,400 machine-hours

what is the budgeted indirect Cost rate?

→ Budgeted MOH rate = $\frac{60,000}{2,400 \text{ M/h}}$ = 25/Machine/h

---

Example : How much indirect Cost should be Allocated to Job 650 and 651, Assuming they incurred 500 and 1480 Machine houres respectively?

MOH Allocated to Job 650 = 25/Machine.h × 1000 Machine.h
= 25,000

MOH Allocated to Job 651 = 25/Machine.h × 1980 machine.h
= 49,500

Total MOH Allocated = 74,500

entry →

WIP inv - Job 650 . 651 74,500

MOH Allocated 74,500

WIP

DM 60,000	
DL 22,000	
MOH All 74,500	
156,500	

5) Assume Job 650 is completed and sold for 150,000 on Account, what are the required Journal entry

first s finised good 650 94,000

WIP inv 650 94,000

second s C.O.G.S 94,000

finished good 94,000

Account Recivable 150,000

sales 150,000

94,000 → 50,000 + 19,000 + 25,000

Job 650 ل ده ي ـلي ـ

Accounting for Overhead

- Recall that two different overhead account were used in the preceding journal entries:
  - Manufactoring overhead Control was debited for the actual overhead costs incurred
    لم تم خصم الرقابة العامة على التصنيع من التكاليف الفعلية
    الكبيرة
  - Manufactoring overhead allocated was Credited for estimated (budgeted) overhead applied to production through the WIP account

    لم تم حساب التكاليف العامة كخصم الطاقة ~~الطاقة~~ للتكلفة العامة التقديرية (المدرجة في الميزانية) المطبقة على الإنتاج من خلال حساب العمل الجاري

- Back to MOH and MOH Allocated

MOH	
79,100	

MOH Allocated	
	74,500

Difference = 4,600

- Actual Cost will almost never equal budget Cost

→ an imbalance situation exists between the two overhead accounts.

1. MOH overallocated

   if MOH < MOH allocated

2. MOH underallocated

   if MOH > MOH allocated

- The difference between the overhead accounts will be eliminated in the end of period adjusting entry process, in two possible method:

MOH allocated, MOH لـ تسوية الفرق بين
هذان الحدين

1. Proration approach

   ↳ The Difference allocated between Cost of Goods sold, WIP, Finished good based on size

لـ حيث يتم توزيع الفرق بين الـ FG, WIP, COGS حسب حجمهن

[2] write-off approach

↳ The Differance is simply written of to Cost of Good sold

لـ ، حيث يتم شطب الفرق ببساطة لتكلفة السلع المباعة

حل سؤال مهم جداً (سؤال موجود بالكتاب)

الحل

[1] entry:

Direct Raw material	121,000	
Account payable		121,000

DM

Beg.	9,400
purch.	121,000
used.	112,400
End.	18,000

Direct Material used

= Beg. + purchased - Ending

= 9,400 + 121,000 - 18,000

= 112,400

---

[2] entry:

work in Process	112,400	
Direct Raw material		112,400

[3] entrys

work in process	87,000	
Manufactor overhead	54,400	
wages payable		141,400

---

[4] entrys

Depreciation expense	53,000	
Accumulated Depreciation		53,000
Manufactor overhead	53,000	
Depreciation expense		53,000

اذ يمكن اختصار ذلك من كلا الـ entry واحدة

entrys

Manufactor overhead	53,000	
Accumulated Depreciation		53,000

---

[5] entrys

Depreciation expense	7,700	
Accumulated Depreciation		7,700

---

[6] entrys لاحظ

Manufactor overhead	46,000	
Account payable		46,000

[Maintenance] لـ الصيانة الخاصة بالآلات

7 entry: باقي

Manufactor over head	9,100	
Account payable		9,100

8 entry:

Manufactor over head	99,000	
Rent payable		99,000

9 entry:

Advertising expense	97,000	
sales Commissions	39,000	
Account payable		136,000

MOH

IDL	54,400
Dep.	53,000
Main.	46,000
Mis.	9,100
Rent.	99,000
End	261,500

Total MOH = 261,500

لم، لكن يجب ان نحسب ال

L. MOH allocated

لعمل طريقة normal Costing

- normal Costing

Budgeted MOH Rate = Budgeted MOH / Budgeted Allocated Base

↳ = 3.10 /DL Cost ← لم رضي السؤال حسبنا اياها

- DL Cost = 87,000

MOH Allocated = 3.10 /DL Cost x 87,000

= 269,700

MOH Allocated

261,700

entry

WIP inv. 269,700

MOH All 269,700

Work in Process

Beg.	6,500
D.M.	112,400
D.L.	87,000
MOH All	269,700
COG.M.	449,600
End.	26,000

Cost of goods Manufactured

= [Beg + DM + DL + MOH All] - End

= 475,600 - 26,000

= 449,600

Journal entry

Finished good inv 449,600

work in process inv 449,600

F G

Beg	60,000
COG.M	449,600
COGS	
End	31,000

Cost of goods sold

= TFG - EFG

= 478,600

- Entry:

Cost of good sold	478,600	
Finished good inv		478,600

Cost of good sold

478,600

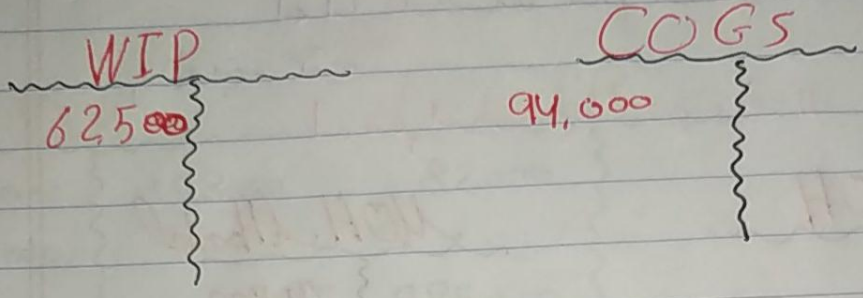
-

في حال تم البيع على الدين ←

entry →

Account Recivable	xxx	
Sales		xxx

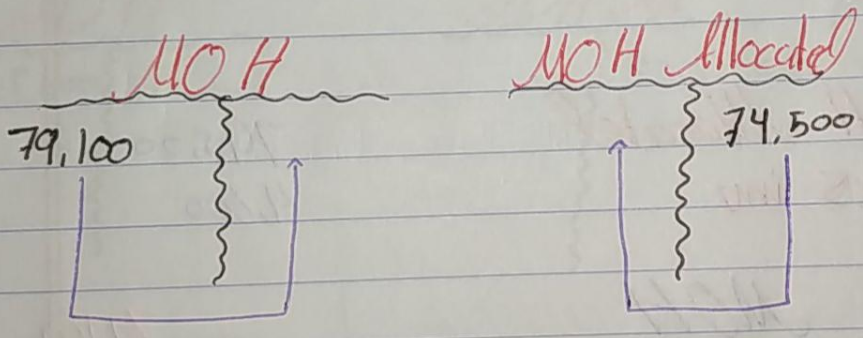
دي زكاة على المثال في البدايات



حسب الطريقة (1) ← Proration approach

لي حيث نستخدم هذه الطريقة

material في حال كان السؤال



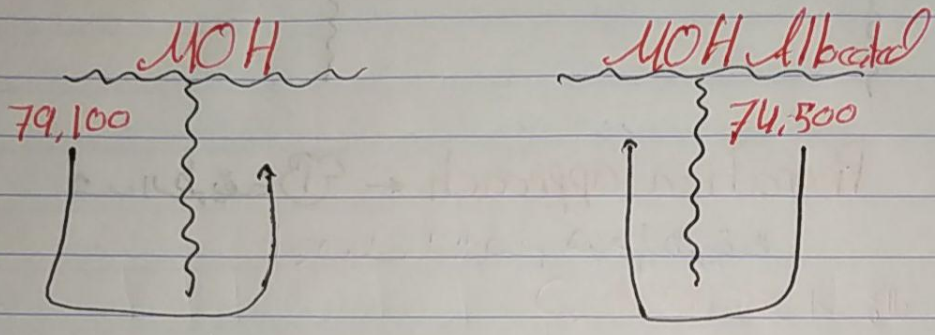
entry:

MOH Allocated		74,500
WIP inv.	$\frac{62,500}{62,500+94,000} \times 4,600$	1,837
COGS inv	$\frac{94,000}{62,500+94,000} \times 4,600$	2763
MOH		79,100

write-off approach (2) حسب الطريقة

لو اذا كان المبلغ immaterial تستخدم هذه الطريقة

COGS لو يتم التوزيع على حساب الـ

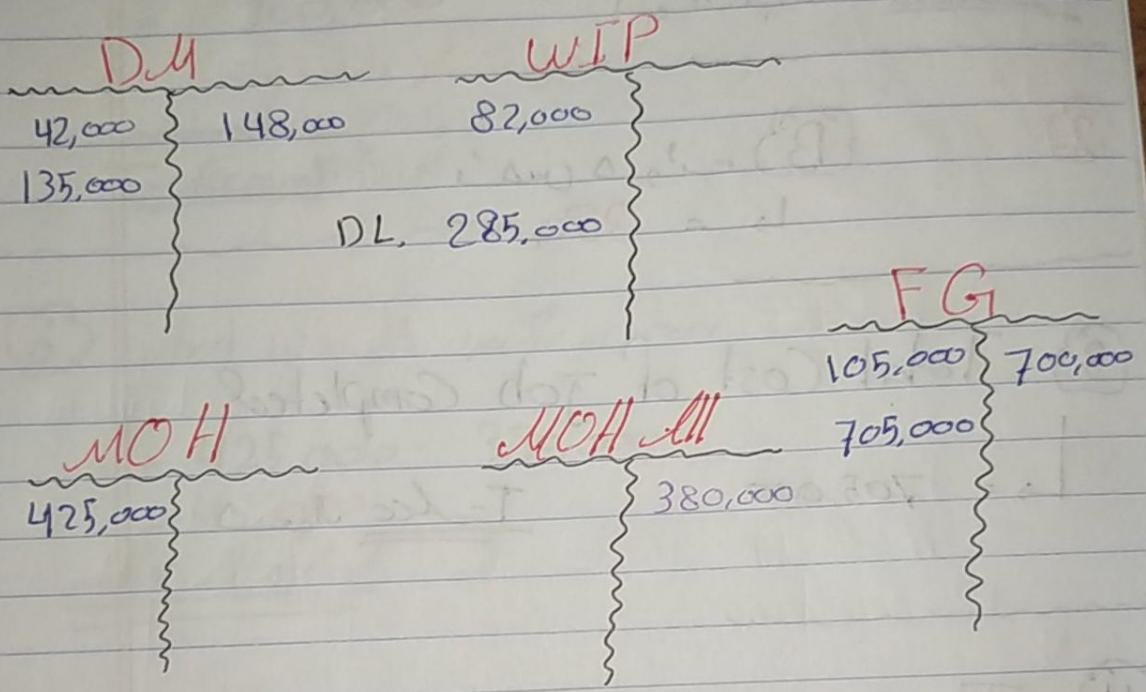


entry:

MOH Allocated	74,500	
COGS inv	4,600	
MOH		79,100

حل التمارين الاضافية ←

Exercise 1:



ⓐ DL = $\frac{285,000}{15}$ Rate = 15

= 19,000 h

ⓑ MOH Allocated Rate = 20

= 20 / DL.h * 19,000

= 380,000

(1) Direct Material issued
= 148,000
T-Account's لـ د ب ا

(2) (B) نفس د و ب
↳ = 380,000

(3) Total Cost of Job Completed
↳ = 705,000 T-Acc د و ب ا

(4) The Balance of WIP in

= Beg WIP + (DM + DL + MOH All) = ~~End WIP~~
= 82,000 + (148,000 + 285,000 + 380,000)
= 82,000 + 813,000 - COGM
= 82,000 + 813,000 - 705,000
= 190,000

(5) Cost of good sold Befor poration

= 700,000

قبل تكيير الفرق

لـ واضح

في الـ T-Accounts

(6) what was the under or over Allocated

= 425,000 - 380,000

= 45,000

under Allocated

Exercise 2a

(1)

WIP Job 211

DM 4000
DL 6000
MOH 9000
19,000

WIP Job 210

DM 7000
DL 3000
MOH 12,000
27,000

→ 27,000 + 19,000
= 46,000

(2) Job 210

MOH = Rate x Allocation Base
12,000 = ? x 8000

Rate = $\frac{12,000}{8000}$ = 1.5

Job 211

MOH = Rate x Allocation Base
9000 = ? x 6000

Rate = $\frac{9000}{6000}$ = 1.5

(3) new MOH Rate = old MOH Rate × 1.2

100% × 20%

= 1.5 × 1.2

= 1.8 / DL cost

→ 1.8 × 10,000

= 18,000

T-Acc بالرجوع إلى الـ

→ 1.8 × 15,000

= 27,000

→ 18,000 + 27,000 = 45,000

(4)

Job	DM	DL	MOH الـ
210	7000	8,000	12,000
	8,500	10,000	18,000
	5,500	15,000	27,000

Total: 21,000 + 33,000 + 57,000 = 111,000

Total = 111,000

Per unit = $\frac{111,000}{1,500}$ = 74 / unit

5

Job 211

new Rate = 1.8

→ 1.8 × 8000
= 14,400

→ 1.8 × 12,000
= 21,600

→ 14,400 + 21,600
= 36,000

DM	DL	MOH All
4000	6000	9000
9000	8000	14,400
7000	12,000	21,600
20,000	26,000	45,000 = 91,000

WIP = DM + DL + MOH All
= 20,000 + 26,000 + 45,000
= 91,000