

HW Chapter 8

#14

Costs

Units

WIP-T	
6/1	\$169,150
from S	280,000
for conversion	209,050
6/30	<u>?</u>

?

beg. WIP-T = 15,000 units } 60% complete w.r.t conversion
 35,000 units started } 100% complete w.r.t transferred in

end WIP-T = 5,000 units } 20% conversion
 100% transferred-in

FIFO

EU = Units needed to complete beg. WIP + Units Started & completed + EU in end WIP



$$\rightarrow S \& C = 35,000 - 5,000 = 30,000$$

$$\text{or } = C - 15,000 = 30,000$$

$$\Rightarrow C = 45,000$$

$$EU_c = 15,000(1 - 60\%) + 30,000 + 5,000 * 20\% = 37,000 \text{ EUR}$$

$$EU_T = 15,000(1 - 100\%) + 30,000 + 5,000 * 100\% = 35,000 \text{ EUS}$$

$$\text{Cost per EU} = \frac{\text{\pounds Costs added}}{\text{EUs}}$$

$$\text{Cost per EU}_C = \frac{\text{\pounds } 209,050}{37,000 \text{ EUs}} = \boxed{\text{\pounds } 5.65/\text{EU}}$$

$$\text{Costs per EU}_T = \frac{\text{\pounds } 280,000}{35,000 \text{ EUs}} = \boxed{\text{\pounds } 8.00/\text{EU}}$$

Now estimate end WIP costs & costs transferred out

End WIP

Conversion	(5,000 * 20%)	* \pounds 5.65/EU	= \pounds 5,650
Transferred-in	(5,000 * 100%)	* \pounds 8/EU	= \pounds 40,000
Total			<u><u>\pounds 45,650</u></u>

Costs transferred out

① Beg. WIP costs

Conversion	\$53,150
Transferred-in	<u>116,000</u>
Total	<u>\$169,150</u>

② Costs to complete beg. WIP

Conversion $15,000 * (1 - 60\%) * \$5.65/EU = \underline{\underline{\$33,900}}$ ←

③ Costs added for units started & completed

Conversion	$30,000 * \$5.65/EU$	\$169,500
Transferred-in	$30,000 * \$8/EU$	<u>240,000</u>
Total		<u>\$409,500</u>

Total Cost transferred out

\$612,550

15 Weighted Avg

EU = units completed + EU in end WIP

$$EU_c = 45,000 + (5,000 * 20\%) = 46,000$$

$$EU_t = 45,000 + (5,000 * 100\%) = 50,000$$

$$\text{Cost per EU} = \frac{\$ \text{beg. WIP costs} + \$ \text{costs added}}{\text{EU}}$$

$$\text{Cost per } EU_c = \frac{\$53,150 + \$209,050}{46,000 \text{ EUs}} = \$5.70/\text{EU}$$

$$\text{Cost per } EU_t = \frac{\$116,000 + \$280,000}{50,000 \text{ EUs}} = \$7.92/\text{EU}$$

\$13.62

Cost in ending WIP

Conversion	$(5,000 * 20\%) * \$5.70/\text{EU}$	\$5,700
Transferred-in	$(5,000 * 100\%) * \$7.92/\text{EU}$	39,600
Total		<u>\$45,300</u>

Costs transferred out

$$45,000 * \$13.62 = \underline{\underline{\$612,900}}$$