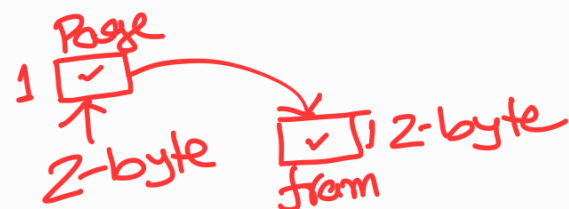


Process P ₁		Process P ₂		Process P ₃	
P	f	P	f	P	f
0	7	0	15	0	2
1	12	1	13	1	6
2	1	2	9	2	3
3	5			3	8
4	4				

$P_1 \rightarrow 10\text{-byte}$
 $P_2 \rightarrow 6\text{-byte}$
 $P_3 \rightarrow 8\text{-byte}$
 page size $\rightarrow 2\text{-byte}$
 Main Mem $\rightarrow 32\text{-byte}$

- a. Address 01001 of P₁
 b. Address 00001 of P₂
 c. Address 00110 of P₃



a. Physical Address $\rightarrow (f * p) + d$
 $\rightarrow (4 * 2) + 1$
 $\rightarrow 9$

b. Physical Address $\rightarrow (f * p) + d$
 $\rightarrow (15 * 2) + 1$
 $\rightarrow 31$

c. Physical Address $\rightarrow (f * p) + d$
 $\rightarrow (8 * 2) + 0$
 $\rightarrow 16$

10101 $\rightarrow 21 \leftarrow P_2$

$(f * p) + d$
 $\rightarrow (?) - \text{Invalid}$

$$\begin{array}{r} p \\ \downarrow \\ 2 \end{array} \mid \begin{array}{r} f \\ \downarrow \\ 9 \end{array} \mid \begin{array}{r} d \\ \downarrow \\ 4 \end{array}$$

$$\begin{array}{r} 8 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 10 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2 \\ \hline 21 \\ \hline 20 \\ \hline 1 \end{array} \mid \begin{array}{r} 10 \\ \hline 5 \end{array}$$

page size \rightarrow 2-byte

- a) Address 00100 of P_1
 b) Address 00100 of P_2
 c) Address 11011 of P_3

a) Address 00100 \rightarrow 4

$$\begin{aligned} & (f * p) + d \\ & \rightarrow (1 * 2) + 0 \\ & \rightarrow \underline{\underline{2}} \end{aligned}$$

$$\begin{array}{r|l} 2 & 4 & 2 \\ p & \downarrow & \uparrow f \\ & 4 & \\ & \hline & 0 & \\ & & \uparrow d \end{array}$$

b) 00100 \rightarrow 4
 $(f * p) + d$
 $\rightarrow (9 * 2) + 0$
 \rightarrow 18

$$\begin{array}{r|l} 2 & 4 & \underline{2} \\ p & \downarrow & \uparrow f \\ & 4 & \\ & \hline & 0 & \\ & & \uparrow d \end{array}$$

c) 11011 \rightarrow 27
Invalid page request

$$\begin{array}{r|l} 2 & 27 & \underline{13} \\ p & \downarrow & \uparrow f \\ & 26 & \\ & \hline & 1 & \\ & & \uparrow d \end{array}$$