Time = 0

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	**X**			
LF	F2,34(R3)				
MULTF	F0,F2,F4				
SUBF	F8,F6,F2				
DIVF	F10,F0,F6				
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	**Yes**	**Load**	**F6**	**R2**					
2	Mult1									
3	Mult2									
4	Add									
5	Div									

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#				**1**					

Time = 2,3

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x		
LF	F2,34(R3)				
MULTF	F0,F2,F4				
SUBF	F8,F6,F2				
DIVF	F10,F0,F6				
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	Yes	Load	F6	R2					
2	Mult1									
3	Mult2									
4	Add									
5	Div									

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#				1					

Time = 1

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	**X**		
LF	F2,34(R3)				
MULTF	F0,F2,F4				
SUBF	F8,F6,F2				
DIVF	F10,F0,F6				
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	Yes	Load	F6	R2					
2	Mult1									
3	Mult2									
4	Add									
5	Div									

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#				1					

Time = 4

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	**X**	**X**
LF	F2,34(R3)	**X**			
MULTF	F0,F2,F4				
SUBF	F8,F6,F2				
DIVF	F10,F0,F6				
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	**Yes**	**Load**	**F2**	**R3**					
2	Mult1									
3	Mult2									
4	Add									
5	Div									

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#		**1**							

Time = 5

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	**X**		
MULTF	F0,F2,F4	**X**			
SUBF	F8,F6,F2				
DIVF	F10,F0,F6				
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	Yes	Load	F2	R3					
2	Mult1	**Yes**	**Mult**	**F0**	**F2**	**F4**	**1**		**No**	**Yes**
3	Mult2									
4	Add									
5	Div									

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	**2**	1							

Time = 6

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x		
MULTF	F0,F2,F4	x			
SUBF	F8,F6,F2	**X**			
DIVF	F10,F0,F6				
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	Yes	Load	F2	R3					
2	Mult1	Yes	Mult	F0	F2	F4	1		No	Yes
3	Mult2									
4	Add	**Yes**	**Sub**	**F8**	**F6**	**F2**		**1**	**Yes**	**No**
5	Div									

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2	1			**4**				

Time = 7

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x		
MULTF	F0,F2,F4	x			
SUBF	F8,F6,F2	x			
DIVF	F10,F0,F6	**X**			
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	Yes	Load	F2	R3					
2	Mult1	Yes	Mult	F0	F2	F4	1		No	Yes
3	Mult2									
4	Add	Yes	Sub	F8	F6	F2		1	Yes	No
5	Div	**Yes**	**Div**	**F10**	**F0**	**F6**	**2**		**No**	**Yes**

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2	1			4	**5**			

Time = 8

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	**X**	**X**
MULTF	F0,F2,F4	x			
SUBF	F8,F6,F2	x			
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	**No**								
2	Mult1	Yes	Mult	F0	F2	F4	1		**Yes**	Yes
3	Mult2									
4	Add	Yes	Sub	F8	F6	F2		1	Yes	**Yes**
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2				4	5			

Time = 9; Mult Given Priority on Read

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	**X**		
SUBF	F8,F6,F2	x			
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	No								
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Sub	F8	F6	F2		1	Yes	Yes
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2				4	5			

Time = 11,12

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	x		
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	No								
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Sub	F8	F6	F2				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2				4	5			

Time = 10; Sub Reads F2

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	**X**		
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2				

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS	No								
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Sub	F8	F6	F2				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2				4	5			

Time = 13

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	x	**X**	**X**
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2	**X**			

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	**Yes**	**Add**	**F6**	**F8**	**F2**				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2			**4**		5			

Time = 14

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	x	x	x
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2	x	**X**		

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Add	F6	F8	F2				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2			4		5			

Time = 17

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	x	x	x
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2	x	x	**X**	

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Add	F6	F8	F2				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2			4		5			

Time = 15,16

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	x	x	x
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2	x	x		

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Add	F6	F8	F2				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2			4		5			

Time = 18,19

Instruction Status

Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x		
SUBF	F8,F6,F2	x	x	x	x
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2	x	x	x	

Functional Unit Status

FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1	Yes	Mult	F0	F2	F4				
3	Mult2									
4	Add	Yes	Add	F6	F8	F2				
5	Div	Yes	Div	F10	F0	F6	2		No	Yes

Register Result Status

	F0	F2	F4	F6	F8	F10	12	...	F30
FU#	2			4		5			

Time = 20

Instruction Status					
Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x	**X**	**X**
SUBF	F8,F6,F2	x	x	x	x
DIVF	F10,F0,F6	x			
ADDF	F6,F8,F2	x	x	x	

Functional Unit Status										
FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1	**No**								
3	Mult2									
4	Add	Yes	Add	F6	F8	F2				
5	Div	Yes	Div	F10	F0	F6	2		**Yes**	Yes

Register Result Status									
	F0	F2	F4	F6	F8	F10	12	...	F30
FU#				4		5			

Time = 21; 40 Cycles Until Div Finishes

Instruction Status					
Instruction		Issue Inst	Read Operands	Execute Inst	Write Result
LF	F6,34(R2)	x	x	x	x
LF	F2,34(R3)	x	x	x	x
MULTF	F0,F2,F4	x	x	x	x
SUBF	F8,F6,F2	x	x	x	x
DIVF	F10,F0,F6	x	**X**		
ADDF	F6,F8,F2	x	x	x	**X**

Functional Unit Status										
FU	Name	Busy	Fm	Fi	Fj	Fk	Qj	Qk	Rj	Rk
1	Int/LS									
2	Mult1									
3	Mult2									
4	Add	**No**								
5	Div	Yes	Div	F10	F0	F6				

Register Result Status									
	F0	F2	F4	F6	F8	F10	12	...	F30
FU#						5			