



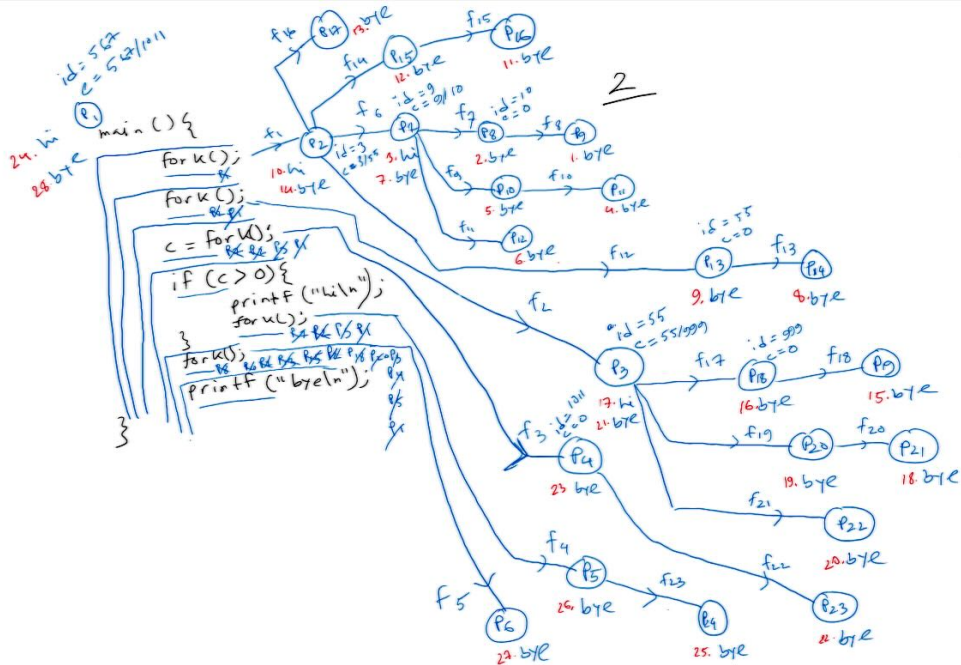
Diagram illustrating a sequence of words and their corresponding actions (represented by hyphens) over time. The sequence is shown in two columns, connected by a curved arrow indicating a transition or continuation.

Left Column (Initial State):

- hi
- hello
- bye
- bye
- hello
- bye
- bye
- hello
- bye
- bye
- hello
- bye
- hi
- hello

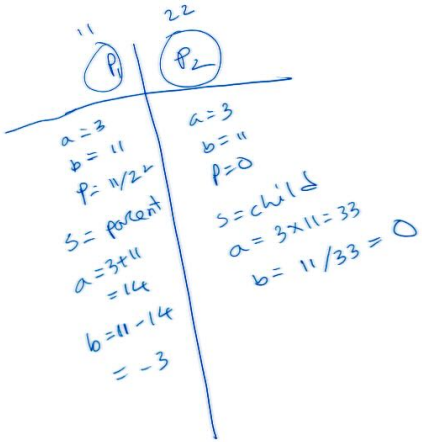
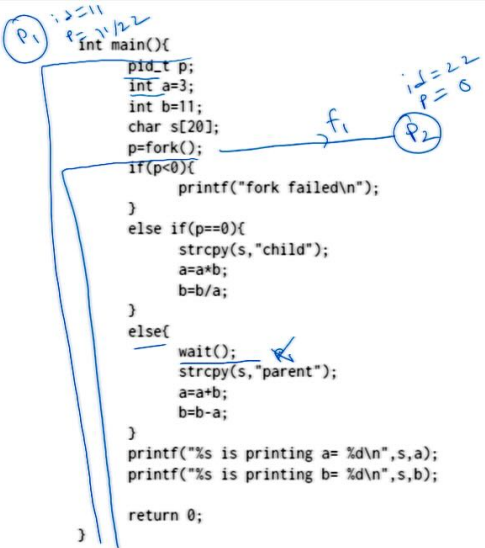
Right Column (Final State):

- bye
- bye
- hello
- bye
- bye
- hi
- hello
- bye
- bye
- hello
- bye
- bye
- bye



output

bye
bye
hi
bye
bye
bye
bye
bye
bye
hi
bye
bye
bye
hi
bye
bye
bye
hi
bye



output
 child is printing a= 33
 child is printing b= 0
 parent is printing a= 14
 parent is printing b= -3

$i_d = 101$
 $x = 101/202$
 $y = 101/303$

```
static int a=5;
static int b=3;
int main(){
```

```
    pid_t x, y;
    x=fork();
    if(x<0){
        printf("fork failed\n");
    }
```

```
    else if(x>0){
        a=a+5;
        b=b-5;
        wait();
        y=fork();
```

```
        if(y<0){
            printf("fork failed\n");
        }
```

```
        else if(y>0){
            wait();
            a=a-2;
            b=b+2;
        }
```

```
        else{
            a=a*2;
            b=b/3;
        }
```

```
    }
    else{
        a=a/2;
        b=b*3;
    }
```

```
    printf("a= %d\n",a);
    printf("b= %d\n",b);
```

```
    return 0;
}
```

$i_d = 202$
 $x = 0$

$i_d = 303$
 $y = 0$

101 P ₁	202 P ₂	303 P ₃
$a=5, b=3$ $x = 101/202$ $a = 5+5 = 10$ $b = 3-5 = -2$ $y = 101/303$ $a = 10-2 = 8$ $b = -2+2 = 0$	$a=5, b=3$ $x = 0$ $a = 5/2 = 2$ $b = 3 \times 3 = 9$	$a=10$ $b=-2$ $y = 0$ $a = 10 \times 2 = 20$ $b = -2/3 = 0$

output:

$a = 2$
 $b = 9$
 $a = 20$
 $b = 0$
 $a = 8$
 $b = 0$