Princeton University
COS 217: Introduction to Programming Systems
Trace of testforkret

```
% gcc217 testforkret.c -o testforkret
```

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```
% ./testforkret
```

```
29409
```

```
int main(void)
{
   pid_t iPid;
   printf("%d parent\n",
      (int)getPid());
   fflush(NULL);
   iPid = fork();
   if (iPid == 0)
      printf("%d child\n",
         (int)getPid());
   else
      printf("%d parent\n",
         (int)getPid());
   printf("%d parent and child\n",
      (int)getPid());
   return 0;
}
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Writes:

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29409 parent
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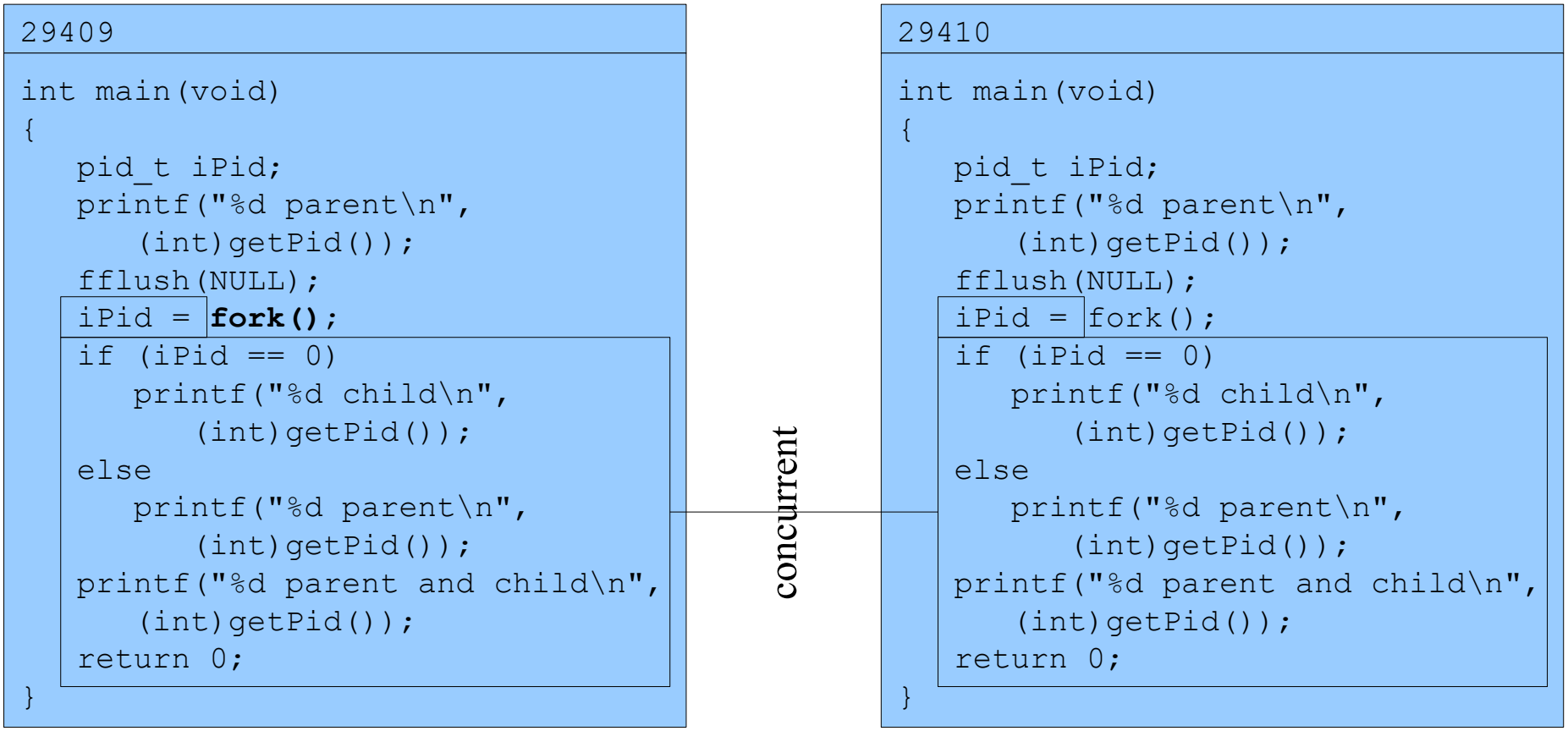

Assume OS gives CPU to parent

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```
% ./testforkret
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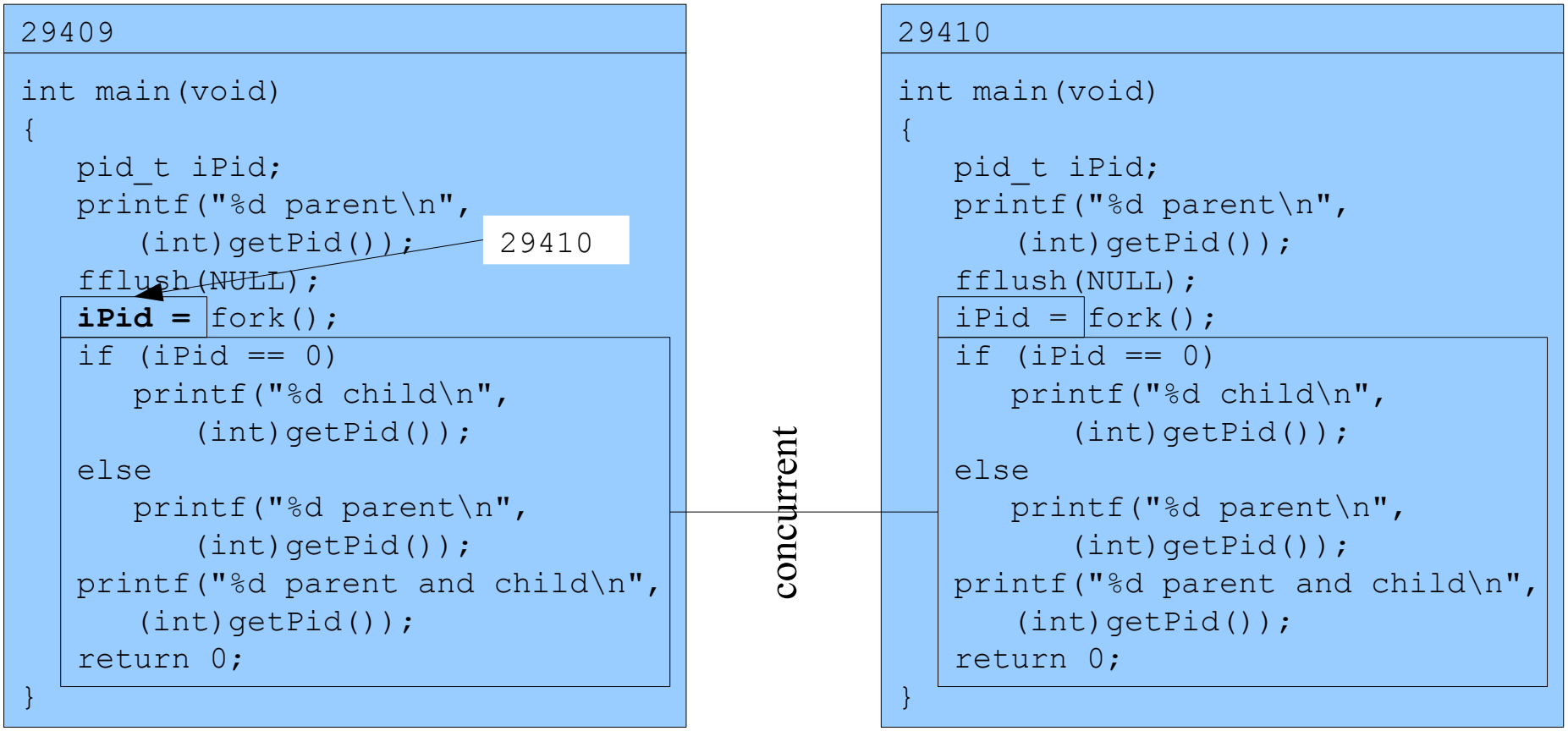

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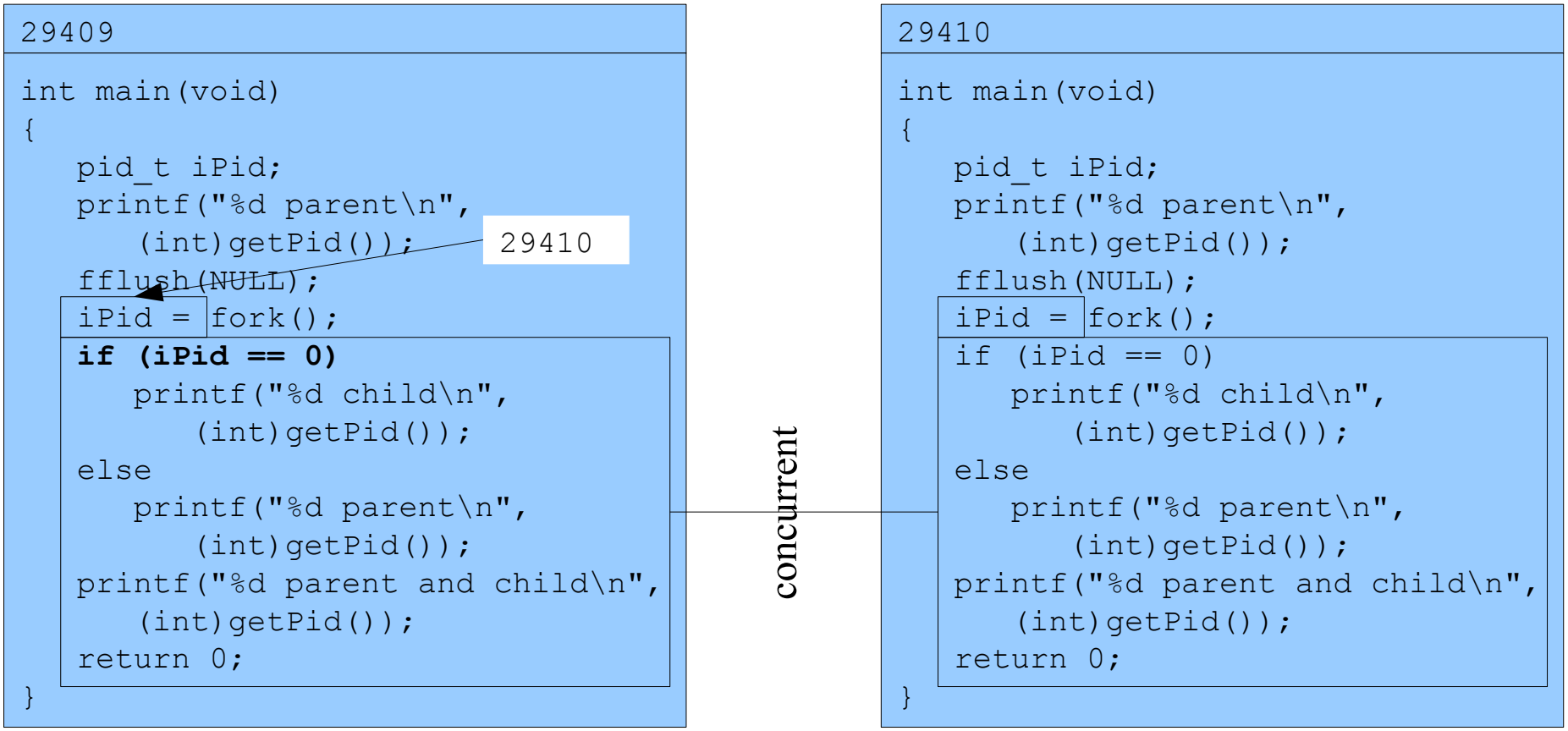

Assume OS gives CPU to parent

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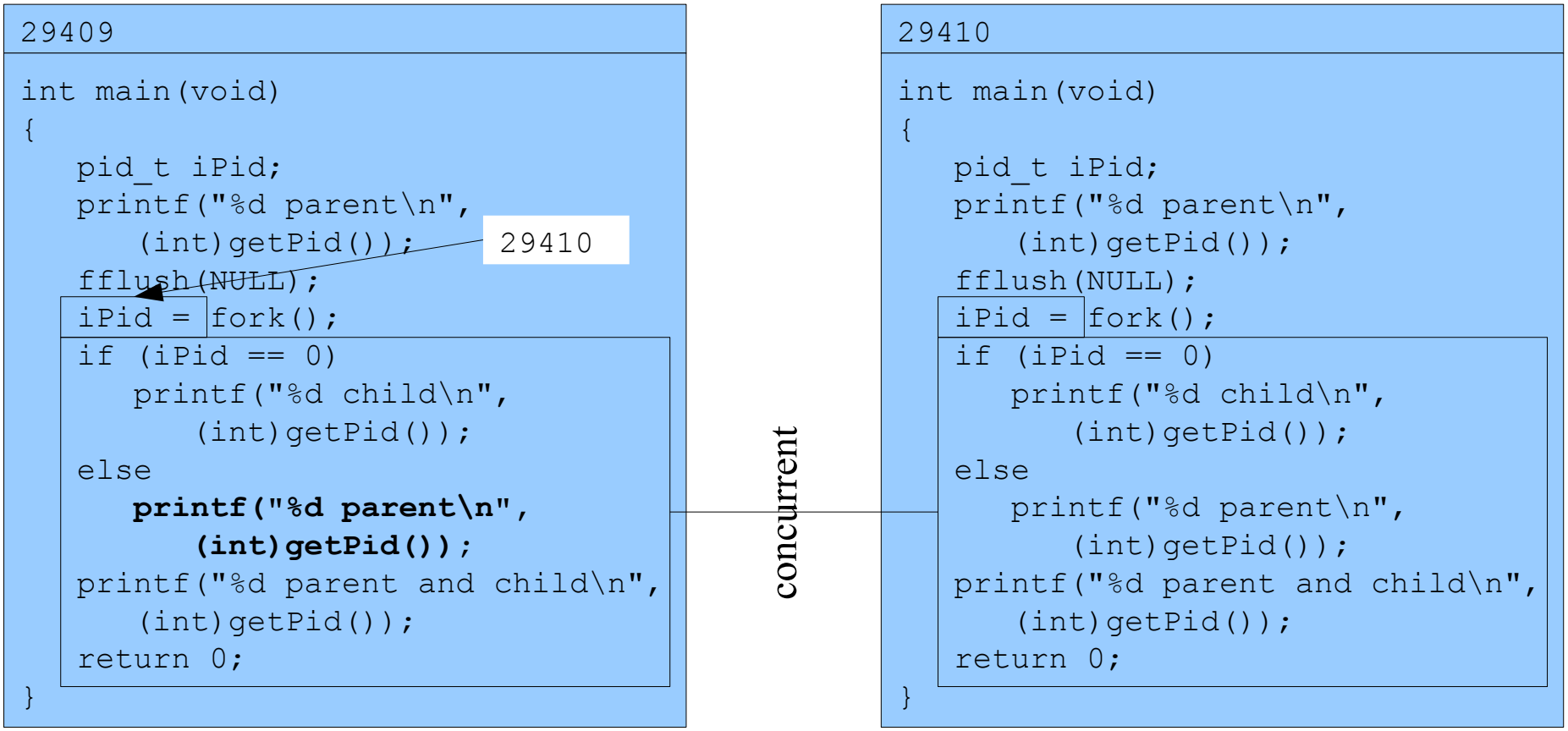

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29409 parent

Assume OS gives CPU to parent

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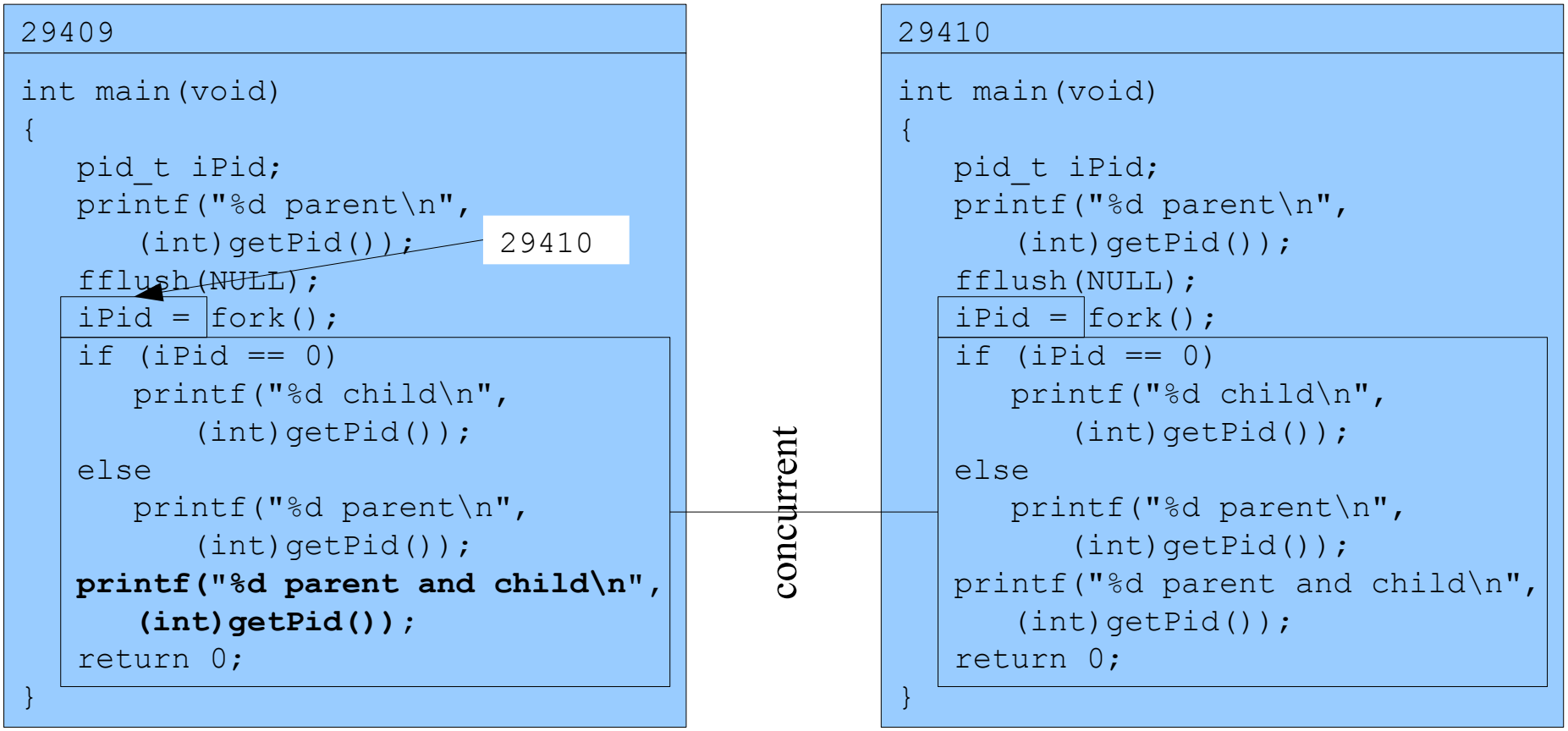

Writes:

```
29409 parent and child
```


Assume OS gives CPU to parent

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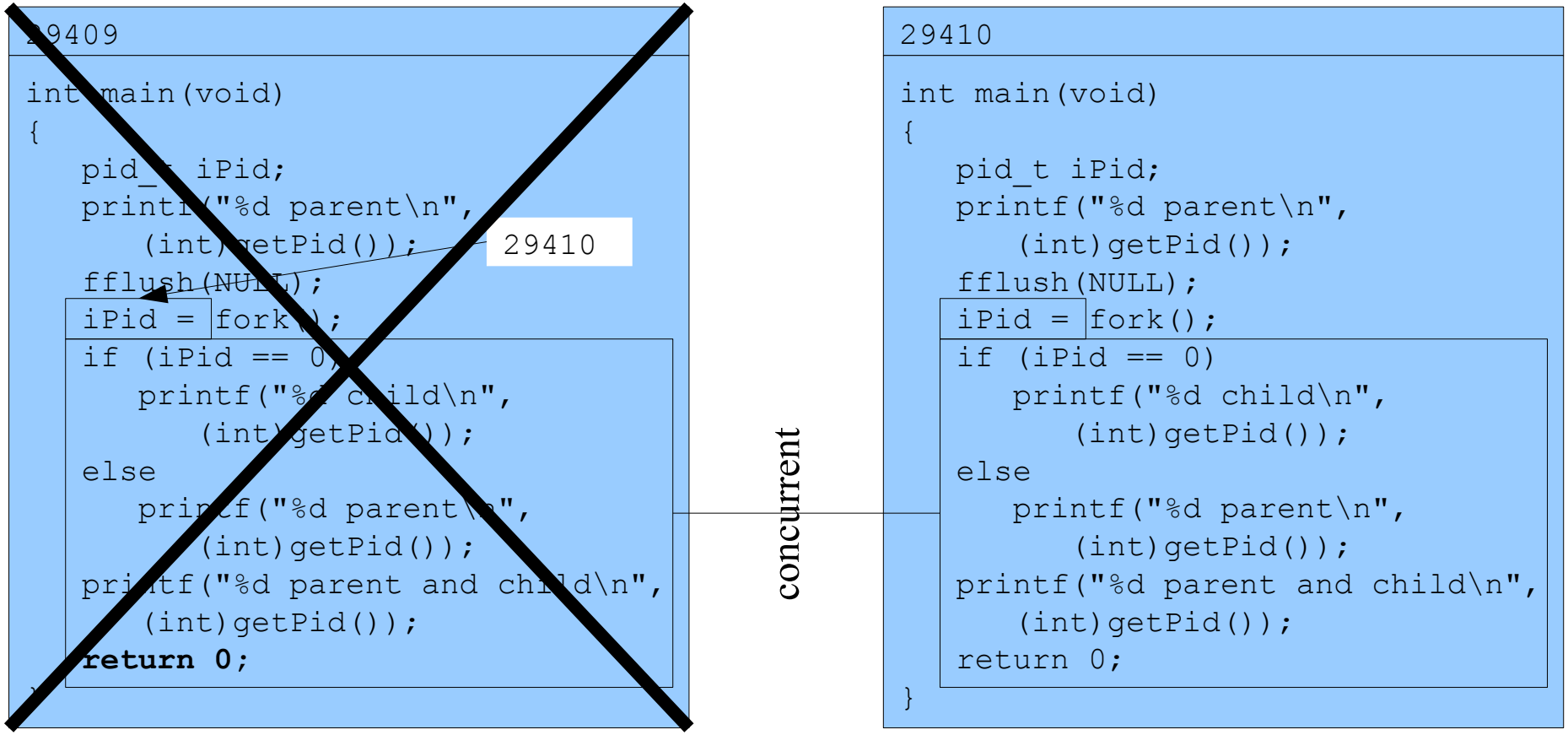

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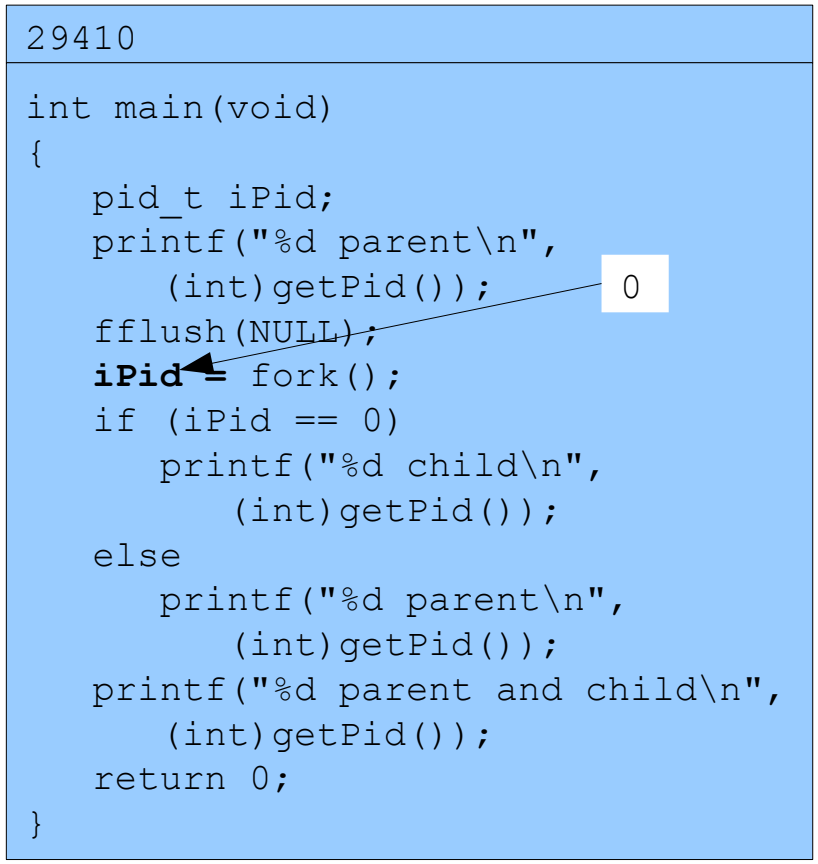

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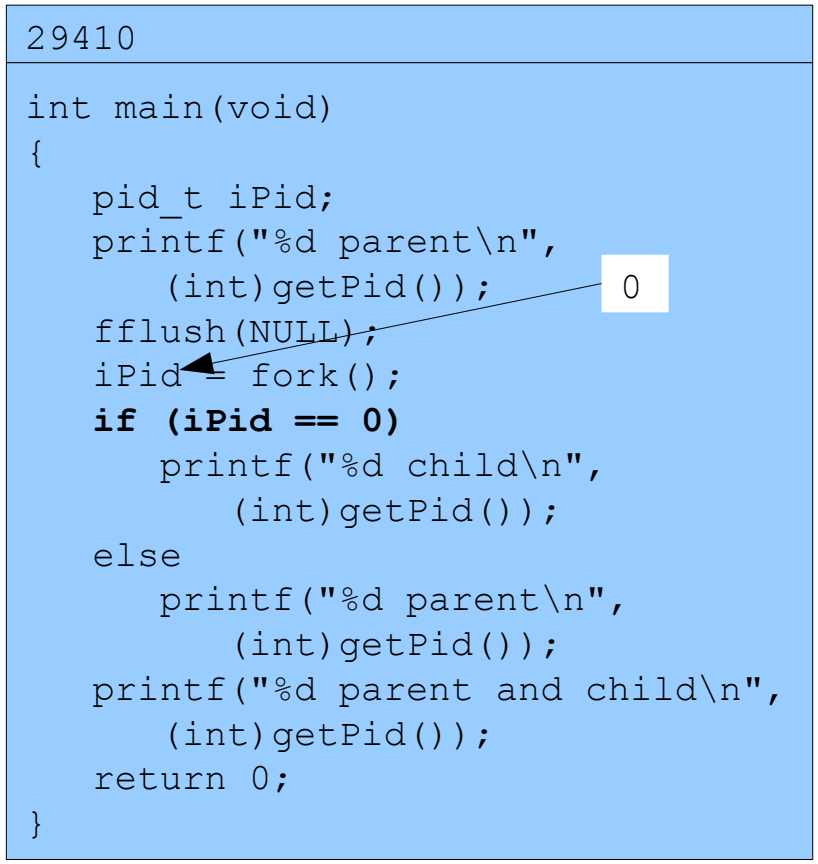

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```
% ./testforkret
```

29410

```
int main(void)
{
   pid_t iPid;
   printf("%d parent\n",
      (int)getPid());
   fflush(NULL);
   iPid = fork();
   if (iPid == 0)
      printf("%d child\n",
         (int)getPid());
   else
      printf("%d parent\n",
         (int)getPid());
   printf("%d parent and child\n",
      (int)getPid());
   return 0;
}
```

0

Writes:

```
29410 child
```

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Trace of testforkret

```
% ./testforkret
```

29410

```
int main(void)
{
   pid_t iPid;
   printf("%d parent\n",
      (int)getPid());
   fflush(NULL);
   iPid = fork();
   if (iPid == 0)
      printf("%d child\n",
         (int)getPid());
   else
      printf("%d parent\n",
         (int)getPid());
   printf("%d parent and child\n",
      (int)getPid());
   return 0;
}
```

0

Writes:

```
29410 parent and child
```

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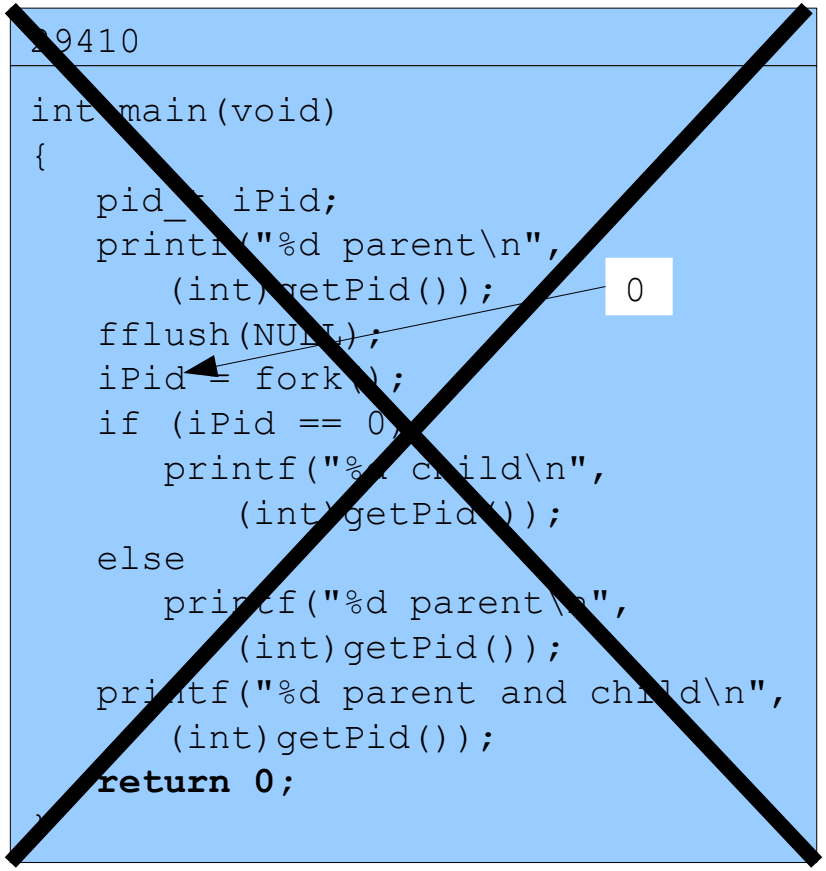
```
% ./testforkret
```



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