

สมาชิก

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ข้อ 1

source code

```
► 0s ◎ cat 01.c □ activity/03 △ ⓘ v15.2.1-gcc 00:31
#include <stdio.h>
#include <unistd.h>
#include <sys/types.h>
#include <sys/wait.h>
int main(){
    printf("I am the parent process. My PID is %d\n", getpid());
    pid_t pid = fork();
    if (pid < 0) {
        printf("[Parent]Error fork failed\n");
    }
    if (pid == 0){
        printf("I am the child process. My PID is %d and my parent's PID is %d\n", getpid(), getppid());
        pid_t pid_2 = fork();
        if (pid_2 < 0){
            printf("[Child]Error fork failed\n");
        }
        if (pid_2 == 0) {
            printf("I am the grandchild process. My PID is %d and my parent's PID is %d\n", getpid(), getppid());
        }
        else{
            wait(NULL);
        }
    }
    else{
        wait(NULL);
    }
    return 0;
}
```

output

```
► 0s ◎ ./01 □ activity/03 △ ⓘ v15.2.1-gcc 00:34
I am the parent process. My PID is 721658
I am the child process. My PID is 721660 and my parent's PID is 721658
I am the grandchild process. My PID is 721661 and my parent's PID is 721660
```

ข้อ 2

source code

```
► 8s ◎ cat 02.c
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/wait.h>
int main(int argc, char *argv[])
{
pid_t pid;
pid = fork();
if (pid < 0) {
printf("Error : cannot fork\n");
exit(1);
}
else if (pid == 0) {
if (argc < 2) {
printf("Please enter UNIX command\n");
exit(1);
}
execvp(argv[1], &argv[1]);
}
else {
wait(NULL);
return(0);
}
}
```

output

```
► 0s ◎ ./02
Please enter UNIX command
► 0s ◎ ./02 date
ว. 14 ม.ค. 2569 00:39:06 +07
► 0s ◎ ./02 head -1 /etc/passwd
root:x:0:0::/root:/usr/bin/bash
► 0s ◎ ./02 cal 12 2021
ธันวาคม
2021
อาท. อ. พฤ. ส. ส.
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31
```