

```

1 #include <sys/wait.h>
2 #include <unistd.h>
3 #include <string.h>
4 #include <stdlib.h>
5 #include <stdio.h>
6
7 #define BUF_SIZE 10
8
9 int main(int argc, char *argv[]) /* Over-simplified! */
10 {
11     int pfd[2]; /* Pipe file descriptors */
12     char buf[BUF_SIZE];
13     ssize_t numRead;
14
15     pipe(pfd); /* Create the pipe */
16
17     switch (fork()) {
18     case 0: /* Child - reads from pipe */
19         close(pfd[1]); /* Write end is unused */
20
21         for (;;) { /* Read data from pipe, echo on stdout */
22             if ( (numRead = read(pfd[0], buf, BUF_SIZE)) == 0)
23                 break; /* End-of-file */
24             if (write(1, buf, numRead) != numRead)
25                 perror("child - partial/failed write");
26         }
27         puts(""); /* newline */
28
29         close(pfd[0]);
30
31         _exit(EXIT_SUCCESS);
32
33     default: /* Parent - writes to pipe */
34         close(pfd[0]); /* Read end is unused */
35
36         if (write(pfd[1], argv[1], strlen(argv[1])) != strlen(argv[1]))
37             perror("parent - partial/failed write");
38
39         close(pfd[1]); /* Child will see EOF */
40
41         wait(NULL); /* Wait for child to finish */
42         exit(EXIT_SUCCESS);
43     }
44 }

```