

### Problem 6. (10 points):

This problem tests your understanding of Unix process control.

Consider the following C program. (For space reasons, we are not checking error return codes, so assume that all functions return normally.)

```
int main()
{
    int status;
    int counter = 1;

    if (fork() == 0) {
        counter++;
        printf("%d", counter);
    }
    else {
        if (fork() == 0) {
            printf("5");
            counter--;
            printf("%d", counter);
            exit(0);
        }
        else {
            if (wait(&status) > 0) {
                printf("6");
            }
        }
    }

    printf("3");
    exit(0);
}
```

For each of the following strings, circle whether (Y) or not (N) this string is a possible output of the program.

- |           |   |   |
|-----------|---|---|
| A. 253063 | Y | N |
| B. 251633 | Y | N |
| C. 520633 | Y | N |
| D. 263503 | Y | N |
| E. 506323 | Y | N |