

1. Declare one variable of each of the following types:

an integer

a pointer to an integer

an array of characters

```
int n;
+11
```

```
int* n;
+11
```

```
char n[3];
+11
```

2. Explain what the indicated asterisk symbol means to the compiler in each of the following lines:

```
/* foo */
```

```
↑
```

```
+7 Beginning of a comment
```

```
int a = 3, b, *foo = &a;
```

```
↑
```

```
+7 foo is a pointer variable
```

```
b = a * *foo;
```

```
↑
```

```
+7 multiplication
```

```
b = a * *foo;
```

```
↑
```

```
+7 value of the variable stored at the address contained in foo
```

```
int my_string_length( char *s );
```

```
↑
```

```
+7 s is a pointer variable
```

3. `double x[2];` Give two different ways of initializing `p` such
`x[0] = 2.71828;` that it points to the first element of the
`x[1] = 3.14159;` array named `x`.
`double *p;`

```
+32  p = x;            p = &x[0];
```

Extra credit: What do you think the following might mean: `int **a;`

```
(+5) a is a pointer to a pointer to int
```