

Assume the following declarations:

```
float f=17.3;
double d=3.14;
int i=2;
char c='A';
```

Indicate the *value* and *type* for each of the following expressions. Note: The ASCII value for **A** is 65 and for **a** is 97.

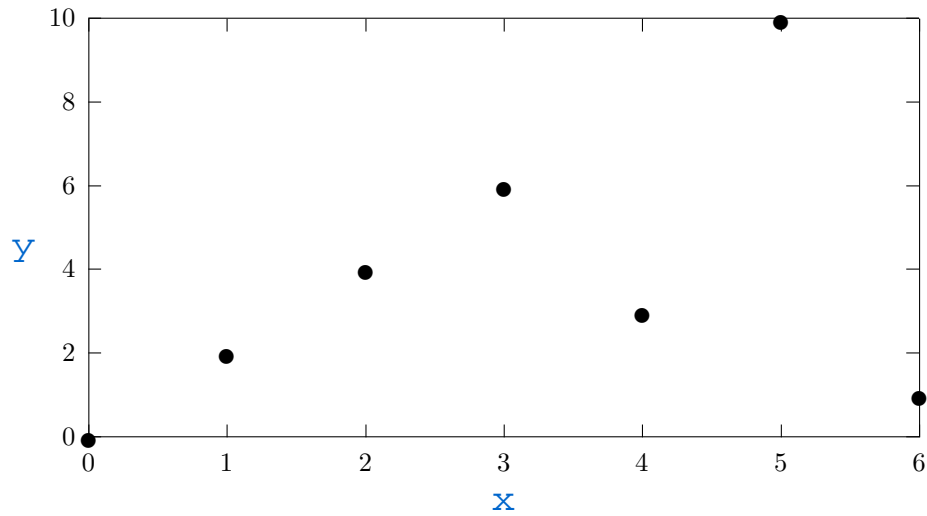
Example:

```
d; // <3.14, double>
```

Your turn:

```
13; // < ----- , ----- >
3.72; // < ----- , ----- >
35000; // < ----- , ----- >
-3.7e0; // < ----- , ----- >
d + f; // < ----- , ----- >
'd'; // < ----- , ----- >
21 / 3; // < ----- , ----- >
f + i; // < ----- , ----- >
d / ( i % 2); // < ----- , ----- >
-3 * c; // < ----- , ----- >
```


The following graph describes the desired relationship between two `int` objects: `x` and `y`. For example, if `x = 2` then `y = 4`, and if `x = 6` then `y = 1`.



Given `x`, write a `switch` statement that assigns `y` to the appropriate value (according to the above graph). Note: You do not need to write an entire program. . . only write the `switch` statement and the assignment statements needed to assign the appropriate value to `y`.



Assume you invest \$50 per month at an annual interest rate of 10% (compounded monthly). Calculate the total value of your investment when you turn 65 years old.

Indicate what each of the following declarations produces.

```
char A[3];
```

```
vector<int> B;
```

```
vector<string> C(22);
```

```
int D[]={1, 2, 3, 4};
```

```
vector<double> E(3,33);
```

Write the function `vecsEqual()` with two parameters. Both parameters should be `vectors` of `doubles`. The function should return a `bool` indicating whether or not the two vectors passed in contain exactly the same elements in exactly the same order. Be sure to specify any preprocessor conditions that are needed (include files, etc).

How do the `vector` and `list` classes differ. Give an example of a situation where it would be better to use a `vector`. Give an example of a situation where it would be better to use a `list`.