if statement

- Condition – must be in ( )’s
- Body of if/else
  - 1 statement OR multiple stmts in { }’s
- Relational operators:
  == < > >= <= !=
- Logic operators:
  && || !

```java
int x = 6;
int y = 9;
if ((x < 5) || (y >= 6)) {
    x = 3;
    y = 2;
} else
    x = 5;
```

Comparing Strings and Objects

```java
String one = "computer";
String two = "com" + one.substring(3, 8);
String three = two;
String four = "science";

System.out.println(two);
if (one == two) // don’t do
    System.out.println("A");
if (two == three) // don’t do
    System.out.println("B");
```
Comparing Strings (cont)

if (one.equals(two))
    System.out.println("C");
if (two.equals(three))
    System.out.println("D");
if (one.compareTo(four) < 0)
    System.out.println("E");

Null and Objects

Chicken bird = null;
// bird = new Chicken("Pia", 5.2, 4.2);
if (bird != null)
    bird.eat(2.3);

What is an image?

- Lots of pixels
- Each pixel represents a color

Classwork today - Images

- Read in an image.
- Modify transformColor method
  - Given a Color, create and return a new Color
  - See API for Color class
  - “Magically” transformation is applied to all
    pixels in the image
  - Image is transformed to new image
  - Darken darkens the image
Example: Change red color a little

public Color transformColor (Color current)
{
    int red = current.getRed();
    int blue = current.getBlue();
    int yellow = current.getYellow();
    return new Color(red + 50, green, blue);
}

CAREFUL! This could cause an error!