

# 10 Making Decisions with If and Else

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We already saw some examples of if statements in our **Bouncing** examples. Now let's learn more about how these work.

**If / Else Statements** are used to make decisions, which is one of the **5 Kinds of Code**

1. Do Stuff
2. Remember Stuff
3. Repeat Stuff
4. **Decide Stuff**
5. Organize Stuff

Anytime we want the computer to behave a certain way sometimes, and behave differently the rest of the time, we need to use **decisions**.

## Boolean Logic

Computers use very simple logic to make decisions. Everything is either **true** or **false**.

You can ask the computer three kinds of True or False questions:

- Greater than ( > )
- Less than ( < )
- Equal to ( == )

In this example, we will practice using **decisions** and practice using text.

## Bar / Bat Mitzvah Card

```

String name = "Chaim";
int age = 13;
boolean boy = true;
String eventType = " ";

void setup() {
  size(800, 600);
  background(255);

  chooseCard();
  drawCard();
  addMessage();
}

void chooseCard() {
  // if boy AND age EQUALS 13
  if (boy && age == 13) {
    eventType = "Bar Mitzvah";
  }
  // else if NOT boy AND age EQUALS 12
  else if (!boy && age == 12) {
    eventType = "Bat Mitzvah";
  }
  // for all other cases
  else {
    eventType = "Birthday";
  }
}

void drawCard() {
  fill(242, 239, 225);
  rect(200, 50, 400, 500);
  fill(0);
  textAlign(CENTER);
  textSize(32);
  text("Mazal Tov!", width/2, 100);
}

void addMessage() {
  fill(0);
  textAlign(CENTER);
  textSize(32);
  text("Join us for the", width/2, 250);
  text(eventType + " of", width/2, 300);
  text(name, width/2, 350);
}

```

## Things To Try

1. Change the name, age, and gender variables. Can you get the card to say "Bat Mitzvah"? Can you get it

to say "birthday"?

2. Make the card background change color depending if its for a boy or a girl.
3. Customize your card with a unique design, border, words, or colors.