

# Base 10 Riddles

---

*MATH 181 with Joe Champion*

**Directions:** Draw base ten pieces to explain your answers to the following questions.

1. I have 2 units, 1 long, and 2 cubes. Who am I?
2. I have 23 units and 4 flats. Who am I?
3. I have 4 flats, 12 longs, and 6 units. Who am I?
4. I have 30 units and 3 flats. Who am I?
5. I am 45. I have 25 units. How many longs do I have?
6. I am 341. I have 22 longs. How many flats do I have?
7. I have 13 longs, 2 flats, and 21 units. Who am I?
8. I have 17 units. I am between 40 and 50. Who am I?
9. I have 17 units. I am between 40 and 50. How longs do I have?

10. Show 134 with the base ten pieces. Draw a picture illustrating these pieces below.
11. Determine at least 4 additional ways to show 134 with the base ten pieces. Draw a picture illustrating the pieces for each of these four ways.
- First way:
  - Second way:
  - Third way:
  - Fourth way:
12. When one has the smallest collection of base ten pieces to represent a number it is called the “minimal collection”. What is the minimal collection for 134?
13. Can you show 2286 with 36 of the base ten pieces? How do you know? Can you do this in more than one way?