1. Calculate the following numbers:

   (a) $3^0 =$

   (b) $3^1 =$

   (c) $3^2 =$

   (d) $3^3 =$

   (e) $3^4 =$

2. Since we are working in a base 3 system, we want to use 3 different symbols to represent numbers. These symbols are ⎯⎯⎯⎯⎯, ⎯⎯⎯⎯⎯, and ⎯⎯⎯⎯⎯.

3. In the base three system, what are the first 10_{TEN} numbers?

4. Convert each of the following numbers into a base three number:

   (a) 81_{TEN}

   (b) 1010_{TWO}

   (c) 65_{TEN}

   (d) 111_{TWO}

   (e) 23_{TEN}

5. What do you think is the importance of learning numbers in other bases? You can answer this question in terms of how you think it helps you better understand our number system.