**JAVA SCRIPT CORE OBJECTS**

1. Create an array of five animals. Use a *for* loop to display the values stored there. Now add two more animals to the end of the array and sort the array. (Use Java-Script’s built-in array methods.) Display the sorted array.
2. Create an associative array called *colors*. Each element of the array is a string representing the color, for example, *red* or *blue*. Use the *for/in* loop to view each element of the array with a color of the font the same color as the value of the array element being displayed.
3. Create a function that will return the current month by its full name. Use the *Date* object to get the current month. Months are returned as 0 for January, 1 for February, 2 for March, and so on. Output should resemble this:

The current month is January.

Hint: You can create an array, starting at index 0, and assign a month value to it; for example, m*onth[0]=“January”* or use a *switch* statement, for example, *case 0 : return “January”*.

1. An invoice is due and payable in 90 days. Write a function that will display that date.
2. How many days until your birthday? Write a function to calculate it.
3. To calculate the balance on a loan, the following formula is used:

*PV* = *PMT* \* ( 1 – (1 + *IR* )*–NP*) / *IR*

*PV* is the present value of the loan; *PMT* is the regular monthly payment of the loan; *IR* is the loan’s interest rate; *NP* is the number of payments remaining. Write a JavaScript statement to represent this formula.

1. Using the formula to calculate the loan balance from the last exercise, write a function that will calculate the principal balance left on a loan where the monthly payments are $600, the annual interest rate is 5.5 percent, and there are 9 years remaining on the loan. Use the *toFixed() Number* method to format the output.
2. Apply the *ceil()*, *floor()*, and *round()* methods to the number 125.5567 and display the results.
3. Create an array of 10 fortune cookies that will be randomly displayed each time the user reloads the page. The fortune will be a saying like: “Procrastination is the thief of time.”
4. Create a string prototype that can be used to create italic, Verdana font, point size 26 text.
5. Calculate the circumference of a circle using the *Math* object.
6. Create a two-dimensional array consisting of numbers representing costs. After creating the array, print out the values with a sales tax of 9 percent added to each cost.
7. Write a JavaScript program that uses the *Array* and *Math* objects. Create an array of five sayings; for example, “*A stitch in time saves 9,”* or *“Too many cooks spoil the broth.”* Each time the Web page is visited, print a random saying.
8. a. Use the *Date* object to print today’s date in this format:

Today is Friday, December 17, 2010.

b. Calculate and display the number of days until your next birthday.

c. Create a prototype for the *Date* object that will print the months starting at 1 instead of 0.

1. a. Create a *String* object containing *“Jose lived in San Jose for many years.”*

b. Find the index for the second *Jose*.

1. Print 58.5678567 in an alert box with only two numbers to the right of the decimal point. Use the *toFixed()* method.