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    "## Exercises\n",
    "\n",
    "Answer the questions or complete the tasks outlined in bold below, use the specific method described if applicable."
   ]
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    "** What is 7 to the power of 4?**"
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    "** Split this string:**\n",
    "\n",
    "    s = \"Hi there Sam!\"\n",
    "    \n",
    "**into a list. **"
   ]
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    "** Given the variables:**\n",
    "\n",
    "    planet = \"Earth\"\n",
    "    diameter = 12742\n",
    "\n",
    "** Use .format() to print the following string: **\n",
    "\n",
    "    The diameter of Earth is 12742 kilometers."
   ]
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    "** Given this nested list, use indexing to grab the word \"hello\" **"
   ]
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    "lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]"
   ]
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    "** Given this nest dictionary grab the word \"hello\". Be prepared, this will be annoying/tricky **"
   ]
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    "d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}"
   ]
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    "** What is the main difference between a tuple and a list? **"
   ]
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    "** Create a function that grabs the email website domain from a string in the form: **\n",
    "\n",
    "    user@domain.com\n",
    "    \n",
    "**So for example, passing \"user@domain.com\" would return: domain.com**"
   ]
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    "** Create a basic function that returns True if the word 'dog' is contained in the input string. Don't worry about edge cases like a punctuation being attached to the word dog, but do account for capitalization. **"
   ]
```

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      "** Create a function that counts the number of times the word \"dog\" occurs in a string. Again ignore edge cas
es. **"
     ]
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      "### Problem\n",
    "**You are driving a little too fast, and a police officer stops you. Write a function\n",
    "  to return one of 3 possible results: \"No ticket\", \"Small ticket\", or \"Big Ticket\". \n",
    "  If your speed is 60 or less, the result is \"No Ticket\". If speed is between 61 \n",
    "  and 80 inclusive, the result is \"Small Ticket\". If speed is 81 or more, the result is \"Big    Ticket\". Unless it is your birthday (encoded as a boolean value in the parameters of the function) -- on your birthday, your speed can be 5 higher in all \n",
    "  cases. **"
   ]
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    "def caught_speeding(speed, is_birthday):\n",
    "    \n",
    "    if is_birthday:\n",
    "        speeding = speed - 5\n",
    "    else:\n",
    "        speeding = speed\n",
    "    \n",
    "    if speeding > 80:\n",
    "        return 'Big Ticket'\n",
    "    elif speeding > 60:\n",
    "        return 'Small Ticket'\n",
    "    else:\n",
    "        return 'No Ticket'"
   ]
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    "Create an employee list with basic salary values(at least 5 values for 5 employees)  and using a for loop retreiv
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```
e each employee salary and calculate total salary expenditure. "
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        "\n",
        "First one to contain fields as Empid,  Empname,  Basicpay\n",
        "\n",
        "Second dictionary to contain fields as DeptName,  DeptId.\n",
        "\n",
        "Combine both dictionaries. "
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