| Spring 2021 CS-455 Handout 1 | Name: |
|---|---|
| plete them. The material on the handouts is a | and graded. However, you are expected to com- a fair game for exams, quizzes, and assignments. It ng lectures. The instructor will be happy to assist |
| 1. What is World Wide Web (WWW)? Whitemet? | hat is the difference between the WWW and the |
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| 2. Interview Question: What is HTTP? | |
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| 3. What is the key to creating secure web ap | oplications? |
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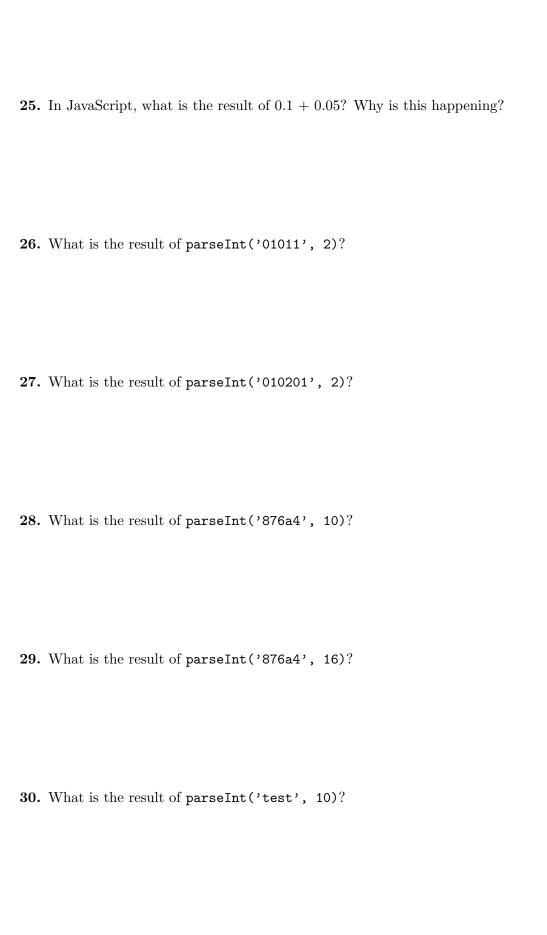
4. What is the main architecture of the web?

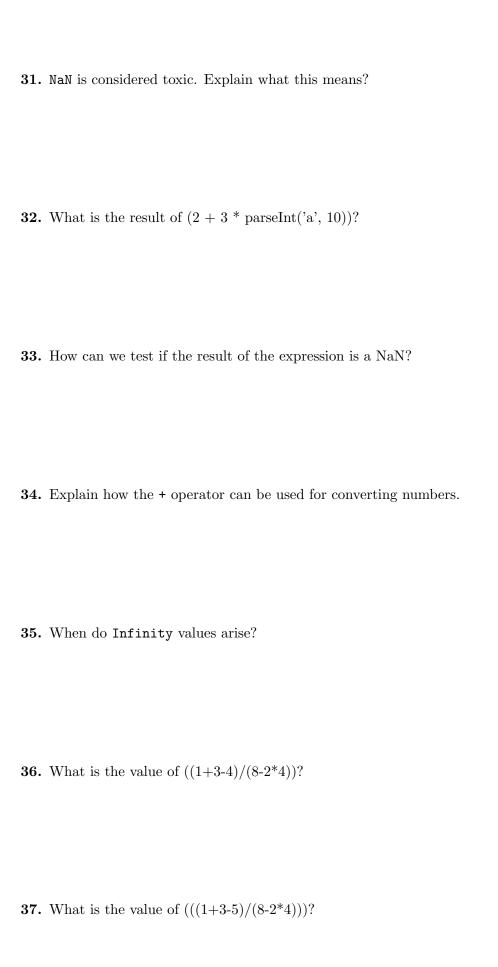
5. Interview Question: What are HTTP Request Messages?

| 6. | What transport layer does HTTP run over? |
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| 7. | Describe the basic structure and format of the HTTP request. |
| 8. | Interview Question: What are HTTP Request Methods? |
| 9. | Interview Question: What is HTTP Response? |
| 10. | What is the difference between HTTP GET and HTTP POST methods? |
| 11. | What are the differences between HTTP/1.0 and HTTP/1.1? |
| 12. | Interview Question: What are persistent connections? |

| 13. | Find a website that uses an non-https login. Run BurpSuite. Submit fake credentials to the website. What do you see in BurpSuite? |
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| 14. | Describe the basic structure of the HTTP response. |
| 15. | Describe the front-end and back-end components of a web app. |
| 16. | What is the difference between a traditional back-end and Node.js back-end? |
| 17. | What are the advantages and disadvantages of Node.js? |
| 18. | What is the relationship between Java and JavaScript? |

| 19. | Was JavaScript originally conceived as front-end or back-end language? |
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| 20. | In the modern times, is JavaScript used in the front-end or back-end? |
| 21. | In Node.js how do we output messages to the console? |
| 22. | In Node.js how do we input data to the console? |
| 23. | What are the basic types supported by JavaScript? |
| 24. | How does JavaScript internally represent numbers? Why is this fact important? |

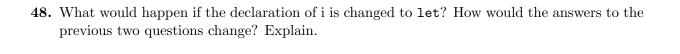


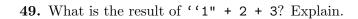


| 38. | What is the value of NaN / Infinity? |
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| 39. | What is the value of 0 / Infinity? |
| 40. | What is the value of Infinity/Infinity? |
| 41. | What is the value of 10 / Infinity? |
| 42. | How can we test if the result of a calculation is infinity? |
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| 43. | What are examples of "truthy" values in JavaScript? |
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| | |
| 44. | What are examples of "falsy" values in JavaScript? |
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| 45. | Describe the difference between variables declared using let, var, and const? |
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| 46. | What will be the output of the following code? Explain: |
| 1 | |
| $\frac{2}{3}$ | for(var i = 0; i < 10; i++) { |
| 4 5 | <pre>b += i; }</pre> |
| | , Land 1997 |
| 6 | |
| 7 | <pre>while(i < 10) {</pre> |
| 7 8 9 | { b =+ 1; |
| 7 8 9 10 | { |
| 7 8 9 | { b =+ 1; |
| 7 8 9 10 11 | { b =+ 1; } |
| 7 8 9 10 11 | { b =+ 1; } |
| 7 8 9 10 11 | { b =+ 1; } |

47. In the code above, point out the scopes where i and b and visible.



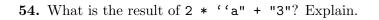


50. What is the result of
$$1 + \text{``2"} + 3$$
? Explain.

51. What is the result of
$$1 + 2 + "3"$$
? Explain.

52. What is the result of 2 * ''1" + 3? Explain.

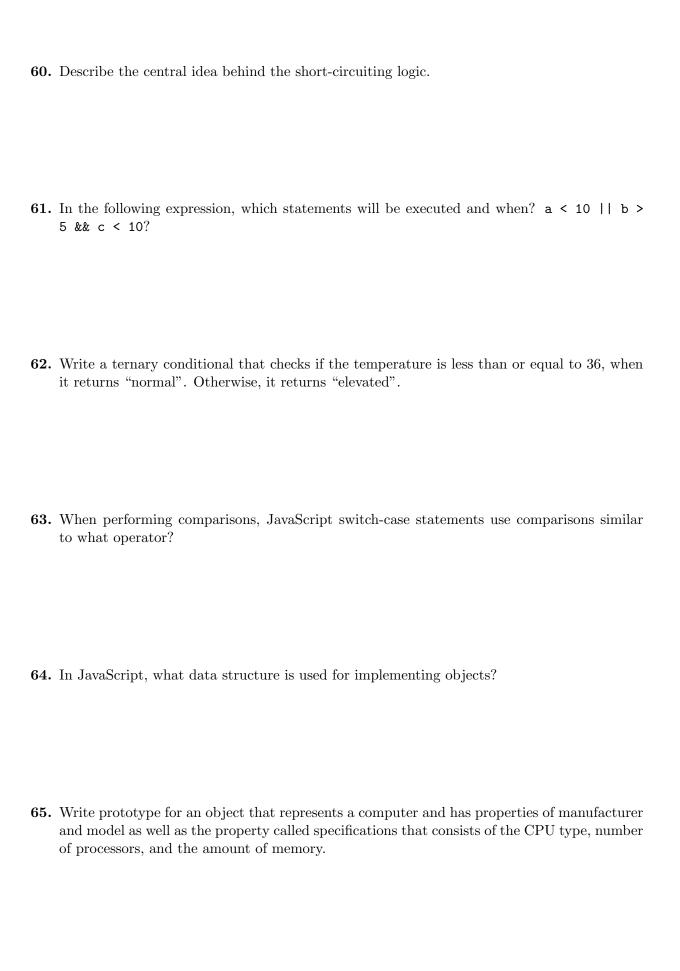
53. What is the result of 2 * 1 + "3"? Explain.

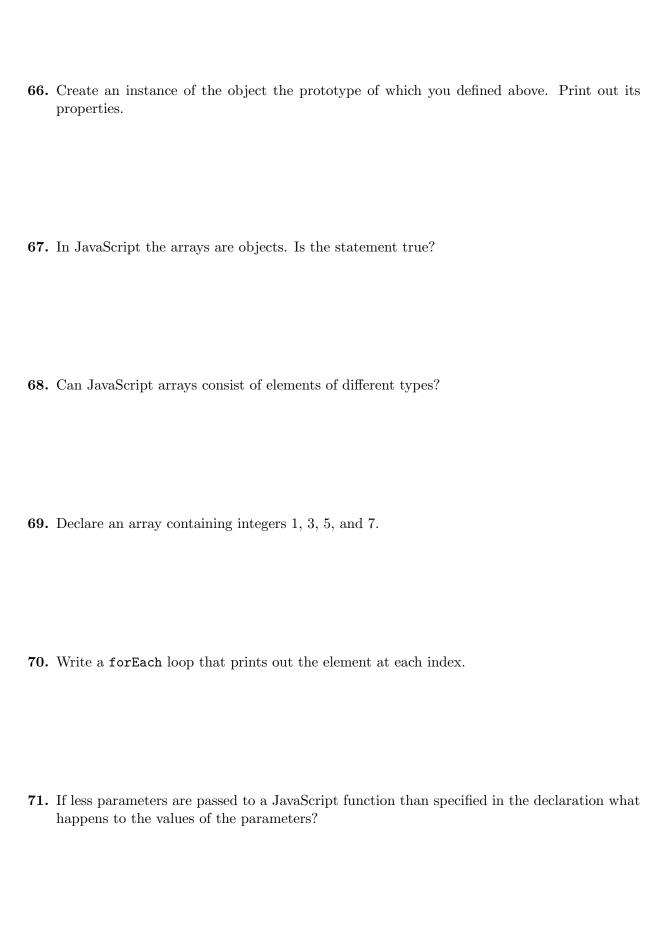


56. What is the result of
$$1 + \text{``2"} + 3 == 123$$
? Explain.

58. What is the result of
$$1 + 40 < ``30"$$
. Explain.

59. Write a for..of loop to sum up the contents of the following array [5, 4, 1, 4].





| 72. | What happens if more parameters are passed to the function than specified in the declaration. How can the additional arguments be accessed? |
|-----|---|
| 73. | Write a JavaScript function that computes an average of an arbitrary number of arguments. |
| 74. | Rewrite the above function using a rest operator. |
| 75. | What are anonymous functions? |
| 76. | Rewrite the function in the previous question as an anonymous function. |
| 77. | Pass the function as a parameter to another function that invokes it. |

| 78. | Explain the significance of the function prototype property. |
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| 79. | Create a prototype of the object student. The prototype should have properties firstName, lastName, major, and year. It should also have function called getStanding() that based on the year will return whether the student is a freshman, sophmore, junior, or senior. |
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