

Directions: Match the following terms with the correct definition.

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|--------------------------|--|
| 1) _____ Analog | A. In design, paying attention to a user's feelings and needs when designing a product |
| 2) _____ Array | B. To critically evaluate in a detailed and constructive manner |
| 3) _____ ASCII System | C. A first or early model of a product that allows you to test assumptions before developing a final version. |
| 4) _____ Bit | D. The visual elements of a program through which a user controls or communicates with the application. |
| 5) _____ Binary | E. Changing how information is represented so that it can be read by a computer. |
| 6) _____ Byte | F. Changing how information is represented so that it can be read by a person. |
| 7) _____ Critique | G. The universally recognized raw text format that any computer can understand. A popular system for representing text in binary. A system for representing characters with patterns of bits |
| 8) _____ Decode | H. A way of representing information using only two options (on/off) |
| 9) _____ Decrypt | I. A contraction of "binary digit"; the single unit of information in a computer, typically represented as a 0 or 1. |
| 10) _____ Digital | J. Picture element; the fundamental unit of a digital image, typically a tiny square or dot that contains a single point of color of a larger image. |
| 11) _____ Empathy | K. To change information so that its meaning hidden. |
| 12) _____ Encode | L. To change information so that its hidden meaning is showing. |
| 13) _____ Encrypt | M. Any continuously changing signal that is not restricted to finite set of values. For example, the wave forms of spoken words. |
| 14) _____ Pixel | N. Data or signals represented by a finite number of values. |
| 15) _____ Prototype | O. A data structure in JavaScript used to represent a list. |
| 16) _____ User Interface | P. 8 bits put together |

Directions: Describe what each line of code means.

17) onEvent: _____

18) onBoardEvent: _____

19) setScreen: _____

20) setProperty: _____

21) getProperty: _____

22) led.on: _____

23) led.off: _____

24) led.blink: _____

25) led.pulse: _____

26) led.toggle: _____

27) toggleSwitch.isOpen: _____

28) soundSensor: _____

29) soundSensor.value: _____

30) lightSensor: _____

31) lightSensor.value: _____

32) tempSensor: _____

33) onBoardEvent "data": _____

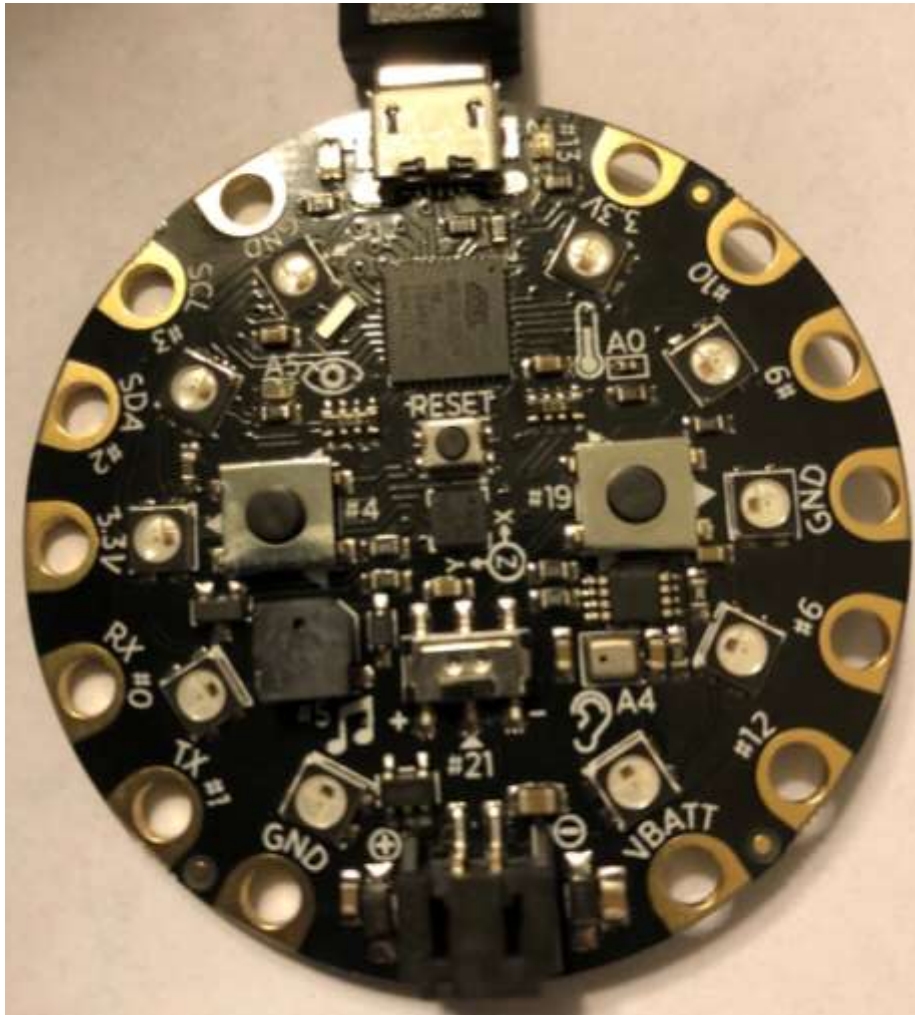
34) onBoardEvent "change": _____

35) colorLeds[index].on(): _____

36) colorLeds[index].blink(): _____

*** NOTE: Be ready to take a given section of code and answer questions regarding the information from those lines of code. ***

Directions: Identify the components of the circuit board and describe what they do.



Directions: Answer the following questions about the circuit board.

37) My current line of code is `led.blink(400)`. I want the led light to blink faster, what should I do?

38) My current line of code is `buzzer.frequency(100, 500)`. What does the first number represent and tell me about what will happen when I run the code?

39) My current line of code is `buzzer.frequency(100, 500)`. What does the second number represent and tell me about what will happen when I run the code?

40) I want the buzzer to continuously play, what should I enter as my line of code?

41) What color is the light for `led.pulse(200)`?

42) What does `led.toggle` do?

Directions: Answer the first question, then encode the following numbers.

43) What color represents "on" in the binary system? _____ What represents "off"? _____

44) 145

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45) 240

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46) 76

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51) Create survey questions.

Define Prepare Try Reflect

52) Create your algorithm.

Define Prepare Try Reflect

53) Determine how to improve your recommendations.

Define Prepare Try Reflect

54) Survey students and collect the data.

Define Prepare Try Reflect

55) Cross tabulate the data results.

Define Prepare Try Reflect

56) Decide what data you want to collect.

Define Prepare Try Reflect

Directions: Complete the following data table using the given raw data set. Then, answer the questions that follow.

57) Those who like Batman are more likely to eat

_____.

58) Those who like Wonder Woman are more likely to eat

_____.

Favorite Super Hero/Lunch Food

- 1) Spiderman/Pizza
- 2) Batman/Pizza
- 3) Spiderman/Bosco Stick
- 4) Spiderman/Pizza
- 5) Wonder Woman/Bosco Stick
- 6) Wonder Woman/Ice Cream
- 7) Spiderman/Ice Cream
- 8) Wonder Woman/Pizza
- 9) Batman/Ice Cream
- 10) Wonder Woman/Bosco Stick
- 11) Wonder Woman/Ice Cream
- 12) Spiderman/Pizza
- 13) Batman/Pizza
- 14) Wonder Woman/Ice Cream
- 15) Spiderman/Pizza
- 16) Batman/Pizza
- 17) Spiderman/Bosco Stick
- 18) Wonder Woman/Ice Cream
- 19) Wonder Woman/Pizza
- 20) Spiderman/Ice Cream

59) Those who like Spiderman are more likely to eat _____.

60) Write an algorithm for this data set.

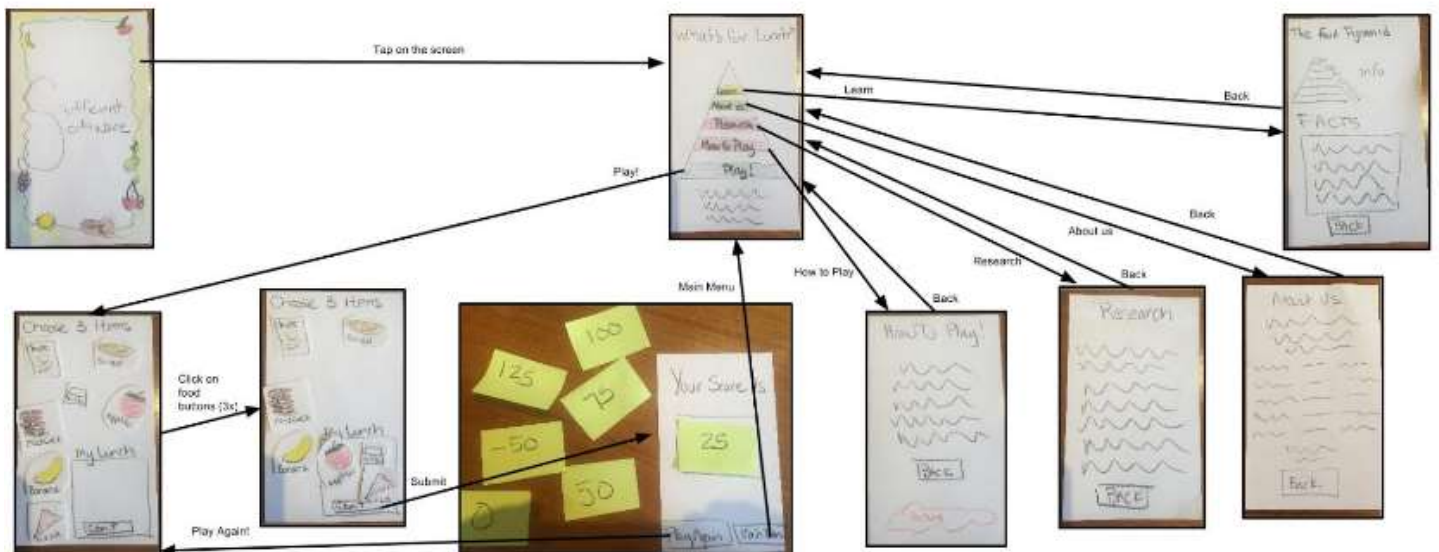
Directions: Use the UI from the given screen to answer the questions that follow.

61) Identify the UI elements that are needed to create the given screen.

62) If you wanted to advance to the next question after the favorite food was chosen, what line of code would you have to use?



Directions: Use the following navigation diagram to answer the questions that follow.



63) What is the purpose of this app? _____

64) What pages take you to the game page? _____

65) There is a directions page on how to play. True False

You can get to the game page from the directions page. True False