**Level 1: Basic Math & Strings**

1. Complete “Lesson 3: Math – Math Basics” by typing the sample commands in the black area of the IDE.

1. 5 + 5 = 10 and 5 – 3 = 2
2. 5 + 10 – 3 = 12

2. Complete “Lesson 3: Math – More Operators” by typing the sample commands in the black area of the IDE.

1. 5 \* 3 = 15 and 10 / 2 = 5.0
2. 3 \* 6 / 3 = 6

3. Complete “Lesson 3: Math – More Division” by typing the sample commands in the black area of the IDE.

1. 10 / 2
2. 5 / 2
3. 10 / 2 = 5.0 and 5 / 2 = 2.5

4. Complete “Lesson 3: Math – Floats” by typing the sample commands in the black area of the IDE.

1. Round(10 / 2) = 5 and Round(5 / 2) = 2

5. Read through “Lesson 3: Math – Comparison Operators”.

1. Because ‘=’ is used to assign a value to the variable you created so ‘==’ is checking if something is equal to some other thing, like in php or java == to check and = to assign.
2. ‘=’ is used to assign a value, so like myAge = 16;

6. Complete “Lesson 3: Math – Practice” and “Lesson 3: Math – Practice Answers” by typing the sample commands in the black area of the IDE.

1. **round(5 \* 3 + 5) / 2 + 5 – 1 = 14.0**
2. **round(5 \* 3 + 5) / 2 + 5 – 1 = 13.0**

7. Complete “Lesson 4: Strings – Strings” and “Lesson 4: Strings – Examples” by typing the sample commands in the black area of the IDE.

1. Because when you are typing apple without the quotes, just like any other programming language it would assume there is a variable called ‘apple’ but there isn’t so it throws an error. When you put quotes around it, it tells the compiler, okay, it’s a string not a variable
2. Because you are making it a string, it’s an equation, the compiler/ide thinks you want to say 2 + 5 when it’s inside the strings rather than actually working out the equation.

8. Complete “Lesson 4: Strings – Operators” by typing the sample commands in the black area of the IDE.

1. Because you are concatenating the letter e onto the string. Would you can’t exactly subtract e from apple, if you would want to remove a certain index the annoying way, you would loop through it and check the current char to length of string. (I’d assume that’s how you do it in python (just from java knowledge)
2. Well you’re pretty much just saying, okay here is my word, now multiply it (repeat in this case) 10 times. But when you try to divide, it won’t work because, how the hell you suppose to divide the word hello into 10, common sense, it make sense if you want to divide each character on its own but there is only 5 characters.

9. Complete “Lesson 4: Strings – Indexes” by typing the sample commands in the black area of the IDE.

1. Kiran. K = 0, I = 1, r = 2, a = 3, n = 4

10. Complete “Lesson 4: Strings – Indexes Examples” by typing the sample commands in the black area of the IDE.

1. Because in programming everything starts from 0
2. A Space

**Level 2: Booleans & Variables**

1. Complete “Lesson 5: Variables – Save a Value” by typing the sample commands in the black area of the IDE.
2. An error because the world/variable puppies does not exist
3. Because the word or variable ‘kittens doesn’t exist or is it assigned to a number first of all
4. Complete “Lesson 5: Variables – Assign a New Value” by typing the sample commands in the black area of the IDE.
5. First you are creating a variable called puppies and assigning it to 36, then you are setting puppies equal to itself divided by 6 which would be 6, then you are printing out the variable puppies which will output 6.

4. Complete “Lesson 5: Variables – Math Operators” by typing the sample commands in the black area of the IDE.

1. You are creating a variable named color and assigning it to the word “red”
2. You are creating a variable named puppies and assigning it a number of 36
3. You get an error because you are trying to add a integer and string.

5. Complete “Lesson 5: Variables – String Operators” by typing the sample commands in the black area of the IDE.

1. Color + day \* fishes = color + the product of day and fishes
2. (Color + day) \* fishes = the product of color and day multiplied by fishes

6. Complete “Lesson 5: Variables – Indexes” by typing the sample commands in the black area of the IDE.

1. 4
2. Print(“mynumber”[7])

7. Complete “Lesson 5: Variables – Assignments or Comparisons” by typing the sample commands in the black area of the IDE.

1. = is used to assign a value, == is used to check if something is equal
2. IDK, I just remember is from experience in other languages

8. Complete “Lesson 6: Errors – Examples” by typing the sample commands in the black area of the IDE.

1. Because you’re trying to combine and integer (whole number) and a string together
2. Int is a whole number, str is a string.

9. Read through “Lesson 6: Errors – Parts of an Error Message”.

a) iii

10. Complete “Lesson 7: Booleans – Types of Data” by typing the sample commands in the black area of the IDE.

1. Print(“Kiran Hart”)

11. Complete “Lesson 7: Booleans – Types of Data” by typing the sample commands in the black area of the IDE.

A) It's a string

B) It's a boolean

C) One is a string and the other is a boolean

12. Complete “Lesson 7: Booleans – What Is A Boolean” by typing the sample commands in the black area of the IDE.

A) One of the best ways to see how important it is, during a game, it's game loop there is usually a variable like 'running or isRunning' which is in a while loop, if 's true, the loop will continue if not well the game isn't running.

13. Complete “Lesson 7: Booleans – Trying Out Booleans” by typing the sample commands in the black area of the IDE.

1. Because it's only true or false, there is something I guess that can get close to a maybe data value in java, it’s a logical operator, like: x = (Expression) ? If True : If False;

**Level 3: Lists & Logic**

1. Complete “Lesson 7: Booleans – AND Comparisons” by typing the sample commands in the black area of the IDE.

A) True, False, False, False

B) I don't think there is.

C) Like the == operator the and is similar because you 'comparing' or 'checking' two or more values.

2. Complete “Lesson 7: Booleans – OR Comparisons” by typing the sample commands in the black area of the IDE.

A) True, True, True, False

B) While the and operator checks if both variables are true, the or will check if either or is true

3. Complete “Lesson 7: Booleans – NOT Comparisons” by typing the sample commands in the black area of the IDE.

1. False, False, False, True
2. The not operator is used to check if the expression is not true, rather than true, (I think)

4. Complete “Lesson 7: Booleans – Expressions” by typing the sample commands in the black area of the IDE.

1. While inside the bracket is checks if either of those statements or not true, but outside it doesn’t, since of the brackets not being there next to the True data type
2. Because the and operator check if both of the variables being compared are true, and the ‘not’ is trying to say otherwise which is why it will return false.

5. Complete “Lesson 7: Booleans - Practice” by typing the sample commands in the black area of the IDE

1. not True or True, not False or False, not False and True
2. True, True, True

6. Complete “Lesson 8: List – A Collection of Objects” by typing the sample commands in the black area of the IDE

*I’m going to create a list of Payments coz instead*

1. [3.95, 53.10, 5.0, 1.29, 100.34]
2. payments = [3.95, 53.10, 5.0, 1.29, 100.34]
3. It is

7. Complete “Lesson 8: List – Practice and Lesson 8: List – List Indexes” by typing the sample commands in the black area of the IDE

1. 4
2. You’re entering a number, well index that is to large compared to the size of the list, like if the list only has 5 items, the index will go up to 4 since everything starts at 0, but if you tried to put 6 it will show out of bounds, it is also a Logic Error (I think)

8. Complete “Lesson 8: List – A Collection of Objects” by typing the sample commands in the black area of the IDE

9. Complete “Lesson 9: Logic – Making Decisions” by typing the sample commands in the black area of the IDE

myAge = 16

if (myAge == 16):

print("Hi Alfred!")

10. Complete “Lesson 9: Logic – Adding A Choice” by typing the sample commands in the black area of the IDE

myName = “Kiran”

if (myName == “Kiran”):

print(“Hi Kiran”)

else:

print(“You’re an impostor!”)

11. Complete “Lesson 9: Logic – Adding Many Choices” and “Lesson 9: Logic – Practice” by typing the sample commands in the white area of the IDE.

personName = "Kiran"

if (personName == "Kiran"):

print("Hey, what's up Kiran?")

elif (personName == "Jonathan"):

print("You're not funny!")

elif (personName == "Megan"):

print("Hey Megan :D")

elif (personName == "Arbaaz"):

print("Wanna play GTA later?")

else:

print(“I have no idea who you are”)