

QUESTION BANK

CHAPTER 3

MORE ON MAKECODE ARCADE

Q1. Multiple Choice Questions

1. Which operator gives the remainder when one number is divided by another?

- A. +
- B. -
- C. *
- D. % (remainder)

Answer: D

2. In Make Code Arcade, which block category contains relational and logical operators?

- A) Game
- B) Logic
- C) Variables
- D) Math

Answer: B

3. Which conditional structure is best when you need to check a number >0, <0, or =0?

- A) if
- B) if-else
- C) if-else-if ladder
- D) nested if —

Answer: C

4. Which logical operator returns true only when both conditions are true?

- A) or
- B) and
- C) not
- D) xor —

Answer: B

5. What will the program print if remain = number % 2 and remain equals 0?

- A) number is odd
- B) number is even
- C) number is negative
- D) It prints nothing —

Answer: B

Q2. Fill in the blanks:

- 1. The remainder operator in MakeCode is used to compute the __ when one number is divided by another. — remainder (modulus)**
- 2. Relational operators return a __ value (True or False). — Boolean**
- 3. The structure that gives two possible paths (true/false) is called __. — if-else**
- 4. The logical operator that inverts a Boolean value is __. — not**
- 5. A chain of multiple if-else checks is called an __ ladder. — if-else-if**

Q3. True / False

1. The if executes code only when its condition is true. — True
2. An else block runs when the if condition is true. — False
3. Logical OR returns true if at least one condition is true. — True
4. You must always use the Math category to create variables. — False
5. The Game category includes blocks to ask for user input. — True

Q4. One-word answer questions:

1. Which block shows a startup message? — Splash
2. What type does a relational operator return? — Boolean
3. Which operator tests equality? — Equals operator
4. Name the operator that gives remainder. — Modulus operator
5. Which logical operator requires both true? — And operator
6. Which structure checks multiple exclusive conditions? — ladder (if-else-if)
7. The block category to create variables is ___. — Variables
8. A check for string matching is performed by ___ operator. — equals
9. The block used to get a number input is called ___. — ask (ask for number)
10. The opposite logical operator is ___. — not

Q5. Competency-based questions

1. Problem: Given a block program that uses join to create splash messages, explain how you would show "5 is even number" where 5 is a variable.

Model answer: Use join block with first placeholder the variable number and second placeholder the text " is even number", then place the join inside a Splash block. This follows the examples of join + splash from the document

CHAPTER 4

CONDITIONAL STATEMENTS IN PYTHOM

Q1. Multiple Choice Questions (MCQs)

1. Which symbol is used for single-line comments in Python?

- A) /
- B) #
- C) \$
- D) //

Answer: B

2. What is the result of the expression 10 // 6 in Python?

- A) 1.66
- B) 1
- C) 4
- D) 0

Answer: B

3. What is the shortcut equivalent of writing $x = x + 3$?

A) $x =+ 3$

B) $x += 3$

C) $x == 3$

D) $x ++ 3$

Answer: B

4. Which operator checks if two operands are unequal?

A) $=$

B) $==$

C) $!=$

D) $<>$

Answer: C

5. What is the default flow of control in Python?

A) Selective

B) Sequential

C) Iterative

D) Randomized

Answer: B

Q2. Fill in the Blanks

1. Python does not execute _____ during program compilation

Answer: comments

2. The valid combination of both operands and operators is called an _____

Answer: expression

3. The _____ operator returns the remainder of a division operation

Answer: modulus

4. The operator $//$ is known as _____ assignment

Answer: floor division

5. An if block inside another if-else block is a _____ structure

Answer: nested

6. The _____ ladder tests multiple conditions top-down

Answer: if...elif...else

Q3. Answer in One Word

1. Which symbol denotes a Python comment?

Answer: #

2. What are the objects of operations called?

Answer: Operands

3. What data type do relational operators output

Answer: Boolean

4. Which keyword evaluates secondary choices in a ladder?

Answer: elif

5. What block executes when all ladder options fail?

Answer: else

6. What is the default execution flow construct?

Answer: Sequence

7. What value represents false numerically in Python?

Answer: 0

8. Which logical operator reverses a boolean value?

Answer: not

9. What arithmetic operator uses double asterisks?

Answer: Exponentiation

10. What character indicates code blocks instead of braces?

Answer: Colon

Q4. True or False Questions

1. Python executes commands starting with #.

Answer: False

2. An expression combines operands and operators.

Answer: True

3. The floor division operator is //.

Answer: True

4. Code `x += 3` means `x = x + 3`.

Answer: True

5. Relational operators return numeric integer values.

Answer: False

Q5. Competency-Based Questions

Question 1

A retail store needs to provide a discount to senior citizens who have a premium membership card. Which type of logical operator should be utilized to check both conditions simultaneously?

Answer: The and logical operator is required since both criteria must evaluate to true.

Question 2

An engineer wants to compute the cube of a number without using manual multiplication loops. Which specific arithmetic operator simplifies this expression?)

Answer: The exponentiation () operator simplifies power calculation tasks).

Question 3

An application processes data from a sensor. It must route execution to "Path A" if a metric is above 50, "Path B" if it is between 20 and 50, and "Path C" for all other instances. What structure should be chosen?

Answer: The if...elif...else ladder is the optimal top-down decision structure

Question 4

A developer is reviewing a script where $x = 10$ and $y = 6$. They encounter the code segment $x \% = y$. What is the final value stored inside the variable x ?

Answer: 4. The operation calculates the remainder of 10 divided by 6

Question 5

Consider the logical puzzle from page 58: "If A is True OR B is False, what is the output?" Assume that variable A contains True and variable B contains True. What is the evaluated output of this condition?

Answer: True. Because A is true, the or condition satisfies instantly.

CHAPTER 5 MORE ON KRITA



Multiple Choice Questions (MCQs)

1. In Krita, layers are like:

- a) Pages in a book
- b) Transparent sheets stacked together ☒
- c) A single canvas
- d) Background colors

2. Which button is used to create a new layer?

- a) Duplicate button
- b) Add Layer button ☒

- c) Delete key
 - d) Import Layer option
3. To duplicate a layer, you need to:
- a) Right-click and select Remove Layer
 - b) Press Enter
 - c) Click on Duplicate Layer button ☒
 - d) Use the Transform tool
4. Which menu option allows importing objects as layers?
- a) File > New
 - b) Layers > Import/Export > Import Layer ☒
 - c) Edit > Preferences
 - d) Tools > Animation
5. To rename a layer, you:
- a) Right-click and select Rename
 - b) Double-click the layer and type new name ☒
 - c) Press Delete key
 - d) Use the Move Layer button

Fill in the Blanks

1. Layers in Krita are _____ sheets stacked on top of each other. Answer: Transparent
2. To create a new layer, click on the _____ button. Answer: Add Layer
3. The _____ docker is used to manage all layers. Answer: Layers
4. To duplicate a layer, click on the _____ button. Answer: Duplicate Layer
5. To rename a layer, _____ click on the layer name. Answer: Double

☒ True or False

1. Layers allow editing one object without affecting others. True
2. You can only create one layer in Krita. False
3. The Delete key can be used to remove a layer. True
4. Frames are displayed as rectangular cells in the Timeline. True
5. Animation in Krita requires switching to Animation workspace. True

One-Word Answers

1. Tool used to draw a ball → Oval
2. Panel to manage layers → Layers
3. Workspace area for drawing → Stage
4. Special frames in animation → Keyframes
5. Button to add new layer → Add
6. Tool to move or resize → Transform
7. Panel for drawing tools → Toolbox
8. Rectangular cells in timeline → Frames
9. Panel for animation controls → Animation
10. Used to rename a layer → Double-click

Competency-Based Questions

1. Explain how layers help in creating complex artwork.

Answer: Layers allow artists to separate different elements of artwork, making it easier to edit individual parts without affecting others.

2. Why is the Timeline important in animation?

Answer: The Timeline controls sequencing and timing of frames, ensuring smooth transitions and realistic motion.

3. How do keyframes enhance animation?

Answer: Keyframes define changes in properties like position, color, or shape, allowing smooth transitions between frames.