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reviewer4@nptel.iitm.ac.in ⌄

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » An Introduction To Programming Through C++

(course)

Announcements (announcements)   **About the Course (https://swayam.gov.in/nd1_noc20_cs53/preview)**

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Unit 3 - Week 1

Course outline

How does an NPTEL online course work?

Week 0

Week 1

● Lecture 1 Part 1: Introduction (unit? unit=17&lesson=25)

○ Lecture 1 Part 2 : Introduction (unit? unit=17&lesson=29)

○ Lecture 1 Part 3 : Introduction (unit? unit=17&lesson=31)

○ Lecture 1 Part 4 : Introduction (unit? unit=17&lesson=30)

○ Lecture 2 Part 1 : Problem Solving using

Week 1 Quiz 1

The due date for submitting this assignment has passed.   Due on 2020-02-12, 23:59 IST. As per our records you have not submitted this assignment.

Fill in the blank in the following program that draws a figure resembling the letter 'M' (lying on its side). Remember that the turtle starts at the center of the canvas and facing right.

forward(100); right(150); forward(50); left(120); forward(50); right(**BLANK1**); forward(100);

1) What is BLANK1?

[   ]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 150

1 point

Fill in the blanks in the following program so that it will print the string "bbbaaaabbbaaaabbbaaaa"

```
repeat(BLANK2){
  repeat(BLANK3){
    cout << "b";
  }
  repeat(BLANK4){
    cout << "aa";
  }
}
```

2) What is BLANK2?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 3

1 point

3) What is BLANK3?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 3

1 point

4) What is BLANK4?

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 2

1 point

Fill in the blanks in the following program so that it draws an array of 16 tiles, organized in 4 rows of 4 tiles each, with each tile being a square of side length 100 and there being 10 pixels between consecutive tiles in each row. The tiles are placed with sides vertical and horizontal.

```
repeat(4){
  repeat(4){
    repeat(4){
      forward(100);
      right(90);
    }
    penUp();
    BLANK5
    penDown();
  }
  penUp(); forward(BLANK6); right(90); forward(BLANK7); right(270); penDown();
}
```

Answer the following:

5) What is BLANK5?

Hint: A complete command is expected here. Please do not include any blanks/white space.

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: String) forward(110)
(Type: String) forward(110);

1 point

6) What is BLANK6?

Hint: A negative number is expected here.

[   ]

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) -440

1 point

7) What is BLANK7?

Hint: A positive number is expected here.

[   ]

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 110

1 point

Suppose we have a 5 x 5 pixel image. The pixels in the top row are numbered 0 through 4 left to right, the ones in the second row from the to are numbered 5 through 9 left to right, and so on. Suppose this image contains a '+' symbol at the center, and the bars in the '+' are 1 pixel wide and 3 pixels long, with the central pixel appearing in both the horizontal and vertical bars. The pixels corresponding to the '+' have value 1 and others have value 0.

8) What is the value of the pixel numbered 6?

[   ]

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 0

1 point

9) How many pixels have value 1?

[   ]

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 5

1 point

10) What are the numbers of pixels with value 1?   *1 point*

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

- [ ] 6
- [ ] 7
- [ ] 8
- [ ] 9
- [ ] 10
- [ ] 11
- [ ] 12
- [ ] 13
- [ ] 14
- [ ] 15
- [ ] 16
- [ ] 17
- [ ] 18
- [ ] 19
- [ ] 20
- [ ] 21
- [ ] 22
- [ ] 23
- [ ] 24

No, the answer is incorrect.
Score: 0

Accepted Answers:
7
11
12
13
17

Suppose you decide to represent the cards in a standard deck using the numbers 1 through 52. So for this, the cards are arranged so that the clubs come first, then the diamonds, then the heards and then the spades. Also within a suit, the order of the cards is ace, then the cards 2 through 10, then the jack, then the queen, then the king. So after arranging the cards in this manner, the ith card is assigned the number i. Thus the king of spades will get the number 52, and the ace of clubs the number 1.

11) What number does the 9 of spades get?

[   ]

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 48

1 point

12) Suppose some card has number n. I would like to know if it is a diamond. Which of the following tests will tell me if this is the case?

1 point

- ( ) n > 26
- ( ) ceiling(n/13) = 2
- ( ) n mod 13 = 0
- ( ) floor(n/13) = 2

No, the answer is incorrect.
Score: 0
Accepted Answers:
ceiling(n/13) = 2

----

13) When you multiply an n digit number by an m digit number manually, then number of digit wise **1 point**
multiplications you perform is:

   ○ m*n

   ○ m+n

   ○ m/n

   ○ m-n

No, the answer is incorrect.
Score: 0
Accepted Answers:
*m*n*

----

14) Give a machine language program which computes the cube of the number stored in address 100
and stores in address 200.

Hint: 1) Modify the fourth power program from the lecture slightly.
2) Write the answer as space separated numbers (exactly one space) with no leading or trailing space.

   [   ]

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: String) 57 100 100 200 57 100 200 200
(Type: String) 57 100 100 200 57 200 100 200

1 point