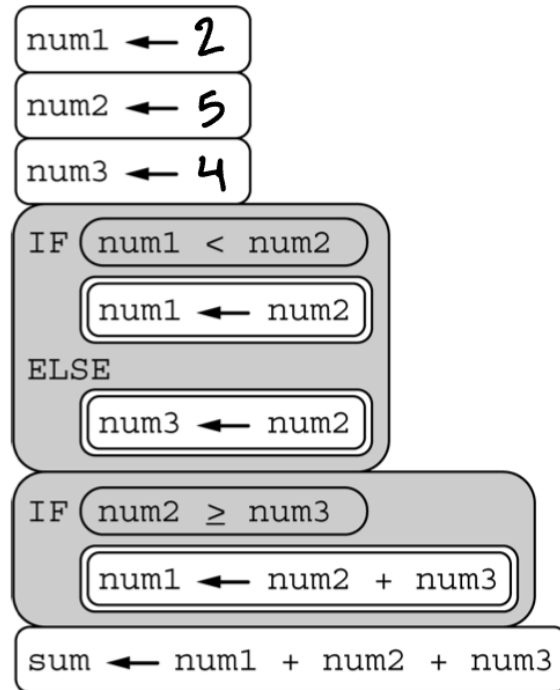


1

Consider the following code segment.

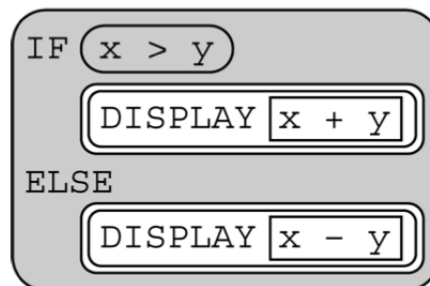


What is the value of `sum` after the code segment is executed?

- (A) 9
- (B) 15
- (C) 18
- (D) 20

2

Consider the following code segment.



If the value of `x` is 4 and the value of `y` is 5, what is displayed as a result of executing the code segment?

- (A) 2
- (B) -2
- (C) -1
- (D) Nothing will be displayed.

3

Assume that the Boolean variable `x` is assigned the value `true` and the Boolean variable `y` is assigned the value `false`. Which of the following will display the value `true`?

Select **one** answer

A

```

IF (x)
  DISPLAY (x AND y)
  
```

C

```

IF (x OR y)
  DISPLAY (x OR y)
  
```

B

```

IF (x OR y)
  DISPLAY (y)
  
```

D

```

IF (x AND y)
  DISPLAY (x AND y)
  
```

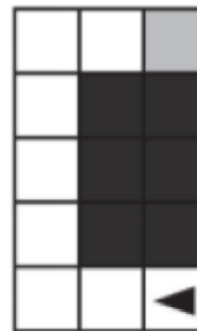
4

The program segment below is intended to move a robot in a grid to a gray square. The program segment uses the procedure *GoalReached*, which evaluates to *true* if the robot is in the gray square and evaluates to *false* otherwise. The robot in each grid is represented as a triangle and is initially facing left. The robot can move into a white or gray square but cannot move into a black region.

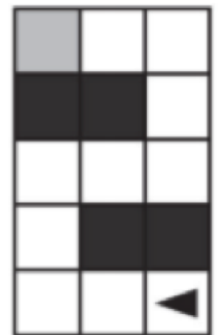
```

REPEAT UNTIL (GoalReached ())
{
  IF (CAN_MOVE (forward))
  {
    MOVE_FORWARD ()
  }
  IF (CAN_MOVE (right))
  {
    ROTATE_RIGHT ()
  }
  IF (CAN_MOVE (left))
  {
    ROTATE_LEFT ()
  }
}
  
```

(A)



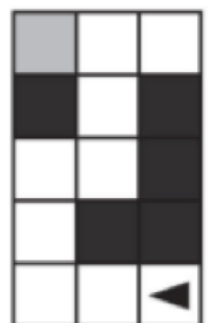
(B)



(C)



(D)



For which of the following grids does the program **successfully** move the robot to the gray square? (select all)