

Pseudocode 20-Minute Mock

Time: 20 minutes.

Questions: 20.

Target: 16+ correct.

Questions

Q1

```
SET a = 4
SET b = 6
SET a = a * b
SET b = a / b
DISPLAY a, b
```

Q2

```
SET sum = 0
FOR i = 2 TO 8 STEP 2
    SET sum = sum + i
END FOR
DISPLAY sum
```

Q3

```
SET x = 20
WHILE x >= 3
    SET x = x - 5
END WHILE
DISPLAY x
```

Q4

```
SET count = 0
FOR i = 1 TO 15
    IF i % 3 = 0 THEN
        SET count = count + 1
    END IF
END FOR
DISPLAY count
```

Q5

```
SET A = [1, 3, 5, 7, 9]
DISPLAY A[2] + A[4]
```

Assume 0-indexing.

Q6

```
SET n = 456
SET rev = 0
WHILE n > 0
    SET d = n % 10
    SET rev = rev * 10 + d
    SET n = n / 10
END WHILE
DISPLAY rev
```

Assume integer division.

Q7

```
FOR i = 1 TO 3
    FOR j = 1 TO i
        DISPLAY j
    END FOR
END FOR
```

Q8

```
SET x = 5
IF x > 3 AND x < 5 THEN
    DISPLAY "A"
ELSE
    DISPLAY "B"
END IF
```

Q9

```
SET x = 5
IF x > 3 OR x < 5 THEN
    DISPLAY "A"
ELSE
    DISPLAY "B"
END IF
```

Q10

```
SET i = 10
REPEAT
    SET i = i - 4
    DISPLAY i
UNTIL i < 0
```

Q11

```
SET A = [4, 8, 2, 10, 6]
SET m = A[0]
FOR i = 1 TO 4
    IF A[i] < m THEN
        SET m = A[i]
    END IF
END FOR
DISPLAY m
```

Q12

```
SET x = 1
FOR i = 1 TO 3
    FOR j = 1 TO 3
        SET x = x + 1
    END FOR
END FOR
DISPLAY x
```

Q13

```
FUNCTION g(n)
    IF n = 1 THEN RETURN 1
    RETURN n * g(n-1)
END FUNCTION
DISPLAY g(4)
```

Q14

```
FUNCTION p(n)
    IF n = 0 THEN RETURN
    p(n-1)
    DISPLAY n * n
END FUNCTION
p(3)
```

Q15

```
SET x = 0
FOR i = 1 TO 5
    IF i % 2 != 0 THEN
        SET x = x + i
    ELSE
        SET x = x - i
    END IF
END FOR
DISPLAY x
```

Q16

```
SET s = "CODE"
FOR i = 3 DOWNT0 0
    DISPLAY s[i]
END FOR
```

Q17

```
SET a = 2
SET b = 5
SET c = a
SET a = b
SET b = c
DISPLAY a - b
```

Q18

```
SET x = 3
SET y = 2
FOR i = 1 TO 3
    SET x = x + y
    SET y = y + 1
END FOR
DISPLAY x
```

Q19

```
SET n = 16
SET count = 0
WHILE n > 1
    SET n = n / 2
    SET count = count + 1
```

```
END WHILE  
DISPLAY count
```

Assume integer division.

Q20

```
SET A = [2, 3, 4]  
SET product = 1  
FOR i = 0 TO 2  
    SET product = product * A[i]  
END FOR  
DISPLAY product
```

Answer key

Q	Answer
1	24, 4
2	20
3	0
4	5
5	14
6	654
7	1 1 2 1 2 3
8	B
9	A
10	6 2 -2
11	2
12	10
13	24
14	1 4 9
15	3
16	EDOC
17	3

Q	Answer
18	12
19	4
20	24