

Complete the trace tables for the following pieces of code / pseudo-code.

1.

```

int x = 5
int y = 1
int z = 0

DO
  x = x-1
  y = y+1
  z = (x + y) * 2

WHILE (x > 0)

```

x	y	z

2.

```

int x = 1
int y = 2
int z = 6

FOR x = 1 to 5

  y = (x * 4)
  z ++

NEXT

```

x	y	z

3.

```

int x = 1
int y = 0
int z = 0

WHILE (z < 5)
  x -= 2
  y = (x + z) * 2
  z ++
END WHILE

```

x	y	z

4.

```

int x = 2
int y = 8
int z = -1

WHILE (z < 0)

  x += 3
  y --

END WHILE

```

x	y	z

5.

```

int x = 2, y = 3, z = 4

DO
  x *= 3
  If (x > 50) Then
    y --
  Else
    z ++
  End If
WHILE (y > 0)

```

x	y	z

6.

```

int x = 1, y = 1, z = 0

FOR x = 1 to 2

  FOR y = 1 to 3

    z = (x * y) * 3

  NEXT y

NEXT x

```

x	y	z

7.

```

int x = 16, y = 2, z = 0

DO
  x = sqrt(x)
  y **
  z += 2

WHILE (z <> 6)

```

x	y	z

8.

```

x = Factorial(5)

FUNCTION Factorial (n As Integer) k As Integer

  IF (n = 1) THEN
    RETURN (1)
  ELSE
    RETURN (n * Factorial(n - 1))
  END IF

END FUNCTION

```

x	n	k