While loops (indefinite pre-test iteration, chapter 5)

Do NOT write on this test. Record all answers on the bubble sheet. **Closed book. No notes.** Work strictly from memory. **No calculators. No time limit. Scratch paper okay.**

How many times does the body of the loop execute? (Mark 9 if 9 or more.)

```
 1/1p.   int d=1; while( d-- >= -6 ) body;
 2/1p.   int x=3; while( ++x != 4 ) body;
 3/1p.   int h=5; while( ++h >= -1 ) body;
 4/1p.   int v=-5; while( --v != -9 ) body;
 5/1p.   int r=9; while( r-- != 8 ) body;
 6/1p.   int r=-5; while( r-- != -9 ) body;
 7/1p.   int q=9; while( --q > 8 ) body;
 8/1p.   int s=-7; while( s++ != -4 ) body;
 9/1p.   int w=-5; while( ++w > -8 ) body;
10/1p.   int d=-6; while( ++d > -13 ) body;
11/1p.   int a=-3; while( ++a != 2 ) body;
12/1p.   int i=7; while( --i < 12 ) body;
13/1p.   int y=-9; while( ++y < -4 ) body;
14/1p.   int q=10; while( ++q != 15 ) body;
15/1p.   int z=4; while( z-- >= 5 ) body;
16/1p.   int a=4; while( a++ != 4 ) body;
17/1p.   int k=-10; while( ++k != -6 ) body;
18/1p.   int v=9; while( v++ != 6 ) body;
19/1p.   int h=10; while( ++h != 19 ) body;
20/1p.   int t=8; while( --t >= 3 ) body;
```

Total points 20.

Answer Key (points per line)

1 (1).	8
2 (1).	0
3 (1).	9
4 (1).	3
5 (1).	1
6 (1).	4
7 (1).	0
8 (1).	3
9 (1).	9
10 (1).	9
11 (1).	4
12 (1).	9
13 (1).	4
14 (1).	4
15 (1).	0
16 (1).	0
17 (1).	3
18 (1).	9
19 (1).	8
20 (1).	5

Total points 20.