

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 i; for(i=8; i>=2; --i) body;`
- 2/1p. `int v; for(v=-6; v>=-5; v--) body;`
- 3/1p. `int b; for(b=-2; b>-6; --b) body;`
- 4/1p. `int g; for(g=-7; g<-7; ++g) body;`
- 5/1p. `int n=10; while(n-- != 14) body;`
- 6/1p. `int q=4; while(++q < 13) body;`
- 7/1p. `int m; for(m=3; m!=11; m++) body;`
- 8/1p. `int i; for(i=-5; i<-2; ++i) body;`
- 9/1p. `int k=-9; do body; while(k++ < -6);`
- 10/1p. `int r=4; while(++r < 13) body;`
- 11/1p. `int n; for(n=4; n<4; ++n) body;`
- 12/1p. `int s=-8; do body; while(s-- >= -13);`
- 13/1p. `int r; for(r=7; r!=14; r++) body;`
- 14/1p. `int g; for(g=3; g>=-2; g--) body;`
- 15/1p. `int v=-7; do body; while(v-- >= -10);`
- 16/1p. `int x=3; while(x++ <= 9) body;`
- 17/1p. `int y; for(y=-9; y>=-9; y--) body;`
- 18/1p. `int m; for(m=-9; m!=-9; --m) body;`
- 19/1p. `int x; for(x=-9; x>-11; x--) body;`
- 20/1p. `int q; for(q=-9; q<-9; q++) body;`
- 21/1p. `int u; for(u=-6; u!=-2; u++) body;`
- 22/1p. `int g=2; while(++g >= -2) body;`
- 23/1p. `int w=-5; do body; while(w-- > -9);`
- 24/1p. `int z=-7; do body; while(++z < -3);`
- 25/1p. `int a=-6; while(a-- > -13) body;`
- 26/1p. `int b=10; do body; while(b++ != 15);`
- 27/1p. `int a=-7; while(a-- < -3) body;`
- 28/1p. `int d=-4; do body; while(d++ != 3);`
- 29/1p. `int q=9; while(++q >= 3) body;`
- 30/1p. `int v=-9; do body; while(v++ <= -4);`

Total points 30.

Answer Key (points per line)

1 (1).	7
2 (1).	0
3 (1).	4
4 (1).	0
5 (1).	9
6 (1).	8
7 (1).	8
8 (1).	3
9 (1).	4
10 (1).	8
11 (1).	0
12 (1).	7
13 (1).	7
14 (1).	6
15 (1).	5
16 (1).	7
17 (1).	1
18 (1).	0
19 (1).	2
20 (1).	0
21 (1).	4
22 (1).	9
23 (1).	5
24 (1).	4
25 (1).	7
26 (1).	6
27 (1).	9
28 (1).	8
29 (1).	9
30 (1).	7

Total points 30.