Analysis of simple algorithms

Count the exact number of instructions (lines) executed for each algorithm.
Express your answer as a function of n.

Algorithm 1: input array b of size n

```
s = 0
t = 1
for i = 1 to n
  s = s + t * b[n-i+1]
  t = 2 * t
```

Algorithm 2: input n

```
s = 0
for i = 1 to n
  for j = 1 to n
    s = s + i*j
```

Algorithm 3: input 3-dim array A of size n × n × n

```
for i = 1 to n
  for j = 1 to n
    for k = 1 to n
      A[i, j, k] = A[i, j, k] + A[j, k, i] * A[k, i, j]
```

Algorithm 4: input n

```
s = 0
t = 1
for i = 1 to n
  for j = 1 to i
    t = t*j
    s = s + t
```

Algorithm 5: input n

```
s = 0
while (n > 1)
  s = s + n
  n = n / 2
```

Algorithm 6: input n

```
p = 1
for i = 1 to n
  for j = 1 to i
    for k = 1 to j
      p = p * (i + j + k)
```