

34. The set of odd integers = A

~~$N = \{1, 2, 3, \dots\}$~~

~~$A = \{1, 3, 5, \dots\}$~~

correspondence?

matching $n \leftrightarrow 2n-1$

N	A
1	1
2	3
3	5
⋮	⋮
n	2n-1

thus $n(A) = \aleph_0$

44. $\{4, 7, 10, 13, 16, \dots\} = A$

proper subset $B = \{7, 10, 13, \dots\}$

(every element from B is in A and A contains something not in B)

A	B
4	7
7	10
10	13

$n \leftrightarrow n+3$

A is infinite because it can be placed in one-to-one correspondence with itself.

oops - 34 should be $N = \{1, 2, 3, 5, \dots\}$
 $A = \{\dots, -3, -1, 1, 3, 5\} \dots$

N	A
1	1
2	-1
3	3
4	-3
⋮	⋮

if n is odd $n \leftrightarrow n$
if n is even $n \leftrightarrow -n+1$
thus $n(A) = \aleph_0$