Using the nth Term

(a) The first four terms of a sequence are $3, 7, 11, 15, \ldots$ Is 50 in the sequence? Explain your answer.

(b) The first four terms of a sequence are $-4, -2, 0, 2, \ldots$ Is 33 in the sequence? Explain your answer.

(c) The first four terms of a sequence are $1, 6, 11, 16, \ldots$ Is 41 in the sequence? Explain your answer.

(a) No, all terms in sequence are odd & 50 is even

(b) No, all terms are even and 33 is odd

(c) ~~No~~ Yes, all terms end in 1 or 6, and 41 ends in a 1

(a) The first four terms of a sequence are $6, 9, 12, 15, \ldots$ Is 39 in the sequence? Explain your answer.

(b) The first four terms of a sequence are $7, 10, 13, 16, \ldots$ Is 67 in the sequence? Explain your answer.

(c) The first four terms of a sequence are $5, 8, 11, 14, \ldots$ Is 40 in the sequence? Explain your answer.

(a) Yes, the sequence is the 3x table from 6 up, and 39 is in the 3x table

(b) Yes, sequence is 1 more than 3x table & 67 is 1 more than 66.

(c) No, sequence is 1 less than 3x table. 40 is 1 less than 41 which is not in 3x table.

(a) The nth term of a sequence is $3n - 2$. Is 95 a term of the sequence? Explain your answer.

(b) The nth term of a sequence is $5n + 3$. Is 118 a term of the sequence? Explain your answer.

(c) The first four terms of a sequence are $7, 11, 15, 19, \ldots$ Is 97 in the sequence? Explain your answer.

(d) The first four terms of a sequence are $-2, 5, 12, 19, \ldots$ Is 110 in the sequence? Explain your answer.

(a) $3n-2=95$ $n=\frac{97}{3}$, No

(b) $5n+3=118$ $n=23$, Yes

(c) $4n+3=97$, $n=23.5$, No

(d) $7n-9=110$ $n=17$, Yes

(a) How many terms in the sequence $5, 9, 13, 17, \ldots$ are less than 200?

(b) Find two numbers that are in the sequence $7, 12, 17, 22, \ldots$ and also in the sequence $-4, 2, 8, 14, \ldots$

(a) $4n+1 < 200$

$n < 49.75$

So 49 terms.

(b) 2nd seq 20, 26, (32), 38, ~~44~~,

50, 56, (62)

32 and 62