

1. The  $n$ th term of a number sequence is given by  $3n - 1$  .

Is 110 a term of this number sequence?

Explain how you get your answer.

1. ....

2. The  $n$ th term of an arithmetic sequence is given by  $3n + 2$ .

Is 105 a term of this sequence?

Explain how you get your answer.

2. ....

3. The  $n$ th term of a number sequence is given by  $7n + 1$  .

Is 106 a term of this number sequence?

Explain how you get your answer.

3. ....

4. The  $n$ th term of a number sequence is given by  $4n - 2$  .

Is 112 a term of this number sequence?

Show how you get your answer.

4. ....

## Answers

1. yes because e.g. attempt to solve  $3n - 1 = 110$ , algebraically or trial and improvement and an argument e.g. shows  $n = 37$  gives 110
2. no because e.g. attempt to solve  $3n + 2 = 105$ , algebraically or trial and improvement and an argument e.g. shows  $n = 34$  gives 104 not 105
3. yes because e.g. attempt to solve  $7n + 1 = 106$ , algebraically or trial and improvement and an argument e.g. shows  $n = 15$  gives 106
4. no because e.g. attempt to solve  $4n - 2 = 112$ , algebraically or trial and improvement and an argument e.g. shows  $n = 28$  gives 110 not 112