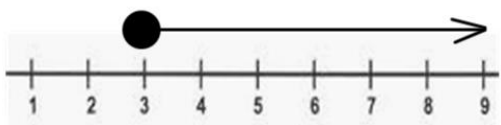
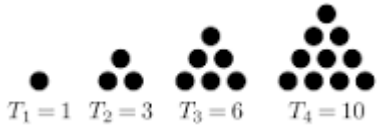


## Year 8 Strand 2

Topic/Skill	Definition/Tips	Example
Write inequality on a number line	Plotting <b>inequalities</b> . To plot an <b>inequality</b> , such as $x > 3$ , on a <b>number line</b> , first draw a circle over the <b>number</b> (e.g., 3). Then if the sign includes equal to ( $\geq$ or $\leq$ ), fill in the circle. If the sign does not include equal to ( $>$ or $<$ ), leave the circle unfilled in.	$x \geq 3$ 
Solve linear inequalities	Inequalities are solved in the same way you would solve an equation - i.e. using the balancing technique	$\begin{array}{rcl} 2(x+3) & \leq & 14 \\ 2x+6 & \leq & 14 \\ -6 & & -6 \\ 2x & \leq & 8 \end{array}$
Triangular numbers	can be represented visually: 	1, 3, 6, 10, 15, 21, ...
Fibonacci Sequence	The sequence starts with 1, 1. To get the following number you add the previous 2 numbers	1, 1, 2, 3, 5, 8, 13, 21, ...
Find nth term of a sequence	The ' <b>nth</b> ' <b>term</b> is a formula with 'n' in it which enables you to find any <b>term</b> of a sequence without having to go up from one <b>term</b> to the next	$2n+1$ gives 3, 5, 7, 9, 11, 13, ... n represents the position of the number in the sequence.
Solve linear equations	Do the same operation on both sides of $=$ - sign in such a way, that you are left with only the unknown variable on one side.	$\begin{array}{rcl} 10 + 6y & = & 34 \\ -10 & & -10 \\ 6y & = & 24 \\ \div 6 & & \div 6 \\ y & = & 4 \end{array}$
Function machine	A <b>Function Machine</b> is a diagram that represents a <b>machine</b> that takes an input, applies a rule such as a set of operations and delivers the answer as an output	