

Grade 7/8 Math **Identifying Linear Sequences**

A linear sequence is only linear if the increment or change in the term is constant. Analyze each of the following sequences and identify the change rule in each sequence and whether it is linear or not. I have done the first for you - do the work in your exercise book.

#1 $\begin{array}{ccccccc} & +5 & +5 & +5 & +5 & +5 & +5 \\ 12, & 17, & 22, & 27, & \underline{32}, & \underline{37}, & \underline{42} \end{array}$

Rule: Start at 12 and increase by 5 each time.

Is this Linear? Yes

#2 100, 81, 64, 49, 36 _____ , _____ , _____

Rule: _____

Is this Linear? _____

#3 211, 198, 185, 172, _____ , _____ , _____

Rule: _____

Is this Linear? _____

#4 8, 11.5, 15, 18.5, 22, 25.5, _____ , _____ , _____

Rule: _____

Is this Linear? _____

#5 71, 65, 59, 53, 47, 41, _____, _____, _____

Rule: _____

Is this Linear? _____

#6 $1/2$, 5, $9\frac{1}{2}$, 14, $18\frac{1}{2}$, _____, _____, _____

Rule: _____

Is this Linear? _____

#7 -26, -11, 4, 19, 34 _____, _____, _____

Rule: _____

Is this Linear? _____

#8 101, 85, 97, 81, 93, 77, _____, _____, _____

Rule: _____

Is this Linear? _____

#9 3.42, 3.56, 3.70, 3.84, 3.98 _____, _____, _____

Rule: _____

Is this Linear? _____

#10 $1/4$, $1/2$, $3/4$, 1, $1\frac{1}{4}$, _____, _____, _____

Rule: _____

Is this Linear? _____