Algebra

In sequence

You may find it useful to explain the rules of a number sequence to someone verbally before writing it down.

1. **Give the next four numbers in these sequences. Write the pattern used at the end.**

a. 0   5   9   15   18   _____

b. 0   2   8   10   16   _____

c. 3   5.5   8   10.5   13   _____

2. **Write in the missing numbers in each of these sequences. Explain the rule that has been used to make the sequence.**

a. $\dfrac{23}{8}$ _____ $\dfrac{27}{8}$ _____ $\dfrac{33}{8}$ _____ $\dfrac{41}{8}$

Rule: _____

b. 0.15   0.8   _____   2.1   _____   _____   4.05   _____

Rule: _____

3. **This pattern continues in the same way. Answer the questions.**

a. Which shape appears in the 28th position? _____

b. How many triangles will there be until you reach the number 40? _____

c. Explain how you found your answers. _____

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