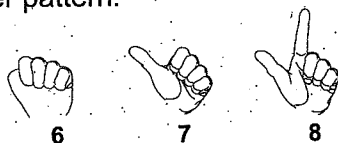#1

~~PA6-1~~: Increasing Sequences

In an **increasing sequence**, each number is greater than the one before it.

Deborah wants to continue the number pattern: 6 , 8 , 10 , 12 , _?_

She finds the **difference**
between the first two numbers:

6   7   8

②
6 , 8 , 10 , 12 , _?_

She finds that the difference between the other numbers in
the pattern is also 2. So the pattern was made by adding 2:

② ② ②
6 , 8 , 10 , 12 , _?_

To continue the pattern, Deborah adds 2 to the last number
in the sequence.

The final number in the pattern is 14:

② ② ② ②
6 , 8 , 10 , 12 , 14

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1. Extend the following patterns. Start by finding the gap between the numbers.

   ◯ ◯ ◯ ◯ ◯
   a) 2 , 5 , 8 , ___ , ___ , ___

   ◯ ◯ ◯ ◯ ◯
   b) 1 , 7 , 13 , ___ , ___ , ___

   ◯ ◯ ◯ ◯ ◯
   c) 2 , 7 , 12 , ___ , ___ , ___

   ◯ ◯ ◯ ◯ ◯
   d) 4 , 8 , 12 , ___ , ___ , ___

   ◯ ◯
   e) 1 , 6 , 11 , ___ , ___ , ___

   ◯ ◯
   f) 4 , 10 , 16 , ___ , ___ , ___

   ◯ ◯
   g) 2 , 12 , 22 , ___ , ___ , ___

   ◯ ◯
   h) 7 , 15 , 23 , ___ , ___ , ___

   ◯ ◯
   i) 31 , 34 , 37 , ___ , ___ , ___

   ◯ ◯
   j) 92 , 98 , 104 , ___ , ___ , ___

   ◯ ◯
   k) 12 , 23 , 34 , ___ , ___ , ___

   ◯ ◯
   l) 0 , 8 , 16 , ___ , ___ , ___

2. A plant that is 17 cm high grows 2 cm each day.

   a) How high will the plant be after three days? _____

   b) In how many days will the plant be 27 cm high? _____