2012 Q2

2. In the county of East Westmore, statisticians estimate there is a baby born every 8 hours and a death every day. To the nearest hundred, how many people are added to the population of East Westmore each year?

(A) 600   (B) 700   (C) 800   (D) 900   (E) 1000

2. **Answer (B):** The net growth per day in East Westmore is 3 births $-$ 1 death $= 2$ people. There are typically 365 days in a year, so the population grows by about $2 \times 365 = 730$, or close to 700 people a year.

2009 Q5

5. A sequence of numbers starts with 1, 2 and 3. The fourth number of the sequence is the sum of the previous three numbers in the sequence: $1 + 2 + 3 = 6$. In the same way, every number after the fourth is the sum of the previous three numbers. What is the eighth number in the sequence?

(A) 11   (B) 20   (C) 37   (D) 68   (E) 99

5. **Answer (D):** Make the list:

Position	1	2	3	4	5	6	7	8
Number				$1+2+3$	$2+3+6$	$3+6+11$	$6+11+20$	$11+20+37$
	1	2	3	$=6$	$=11$	$=20$	$=37$	$=68$

So the eighth number in the sequence is 68.

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