### 2005 Q12

12. Big Al, the ape, ate 100 bananas from May 1 through May 5. Each day he ate six more bananas than on the previous day. How many bananas did Big Al eat on May 5?

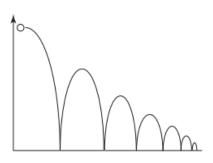


- (A) 20
- **(B)** 22
- **(C)** 30
- **(D)** 32
- **(E)** 34

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# 2008 Q12

12. A ball is dropped from a height of 3 meters. On its first bounce it rises to a height of 2 meters. It keeps falling and bouncing to  $\frac{2}{3}$  of the height it reached in the previous bounce. On which bounce will it not rise to a height of 0.5 meters?



- **(A)** 3
- **(B)** 4
- **(C)** 5
- **(D)** 6
- **(E)** 7

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15. What is the 1992<sup>nd</sup> letter in this sequence?

ABCDEDCBAABCDEDCBAABCDEDC...

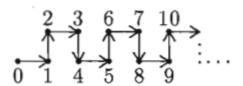
- (A) A (B) B (C) C (D) D

- $(\mathbf{E})$  E

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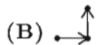
#### 1994 Q15

15. If this path is to continue in the same pattern:

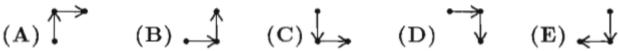


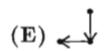
then which sequence of arrows goes from point 425 to point 427?











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### 1998 Q15

Problems 15, 16, 17 all refer to the following:

# Don't Crowd The Isles

In the very center of the Irenic Sea lie the beautiful Nisos Isles. In 1998 the number of people on these islands is only 200, but the population triples every 25 years. Queen Irene has decreed that there must be at least 1.5 square miles for every person living in the Isles. The total area of the Nisos Isles is 24,900 square miles.

- 15. Estimate the population of Nisos in the year 2050.
  - **(A)** 600
- **(B)** 800
- **(C)** 1000
- **(D)** 2000
- **(E)** 3000

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#### 1998 Q16

Problems 15, 16, 17 all refer to the following:

### Don't Crowd The Isles

In the very center of the Irenic Sea lie the beautiful Nisos Isles. In 1998 the number of people on these islands is only 200, but the population triples every 25 years. Queen Irene has decreed that there must be at least 1.5 square miles for every person living in the Isles. The total area of the Nisos Isles is 24,900 square miles.

- Estimate the year in which the population of Nisos will be approximately 6,000.
  - **(A)** 2050
- **(B)** 2075
- **(C)** 2100
- **(D)** 2125
- **(E)** 2150

### 1998 Q17

Problems 15, 16, 17 all refer to the following:

# Don't Crowd The Isles

In the very center of the Irenic Sea lie the beautiful Nisos Isles. In 1998 the number of people on these islands is only 200, but the population triples every 25 years. Queen Irene has decreed that there must be at least 1.5 square miles for every person living in the Isles. The total area of the Nisos Isles is 24,900 square miles.

- 17. In how many years, approximately, from 1998 will the population of Nisos be as much as Queen Irene has proclaimed that the islands can support?
  - (A) 50 yrs.
- **(B)** 75 yrs.
- (C) 100 yrs.
- **(D)** 125 yrs.
- **(E)** 150 yrs.