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STATS MEAN MEDIAN MODE

2005A 6. **(B)** The sum of the 50 numbers is $20 \cdot 30 + 30 \cdot 20 = 1200$. Their average is $1200/50 = 24$.

2013B

6. **Answer (C):** The sum of all the ages is $55 \cdot 33 + 33 \cdot 11 = 33 \cdot 66$, so the average of all the ages is

$$\frac{33 \cdot 66}{55 + 33} = \frac{33 \cdot 66}{88} = \frac{33 \cdot 3}{4} = 24.75 \,.$$

2016A

7. **Answer (D):** The mean of the data values is

$$\frac{60 + 100 + x + 40 + 50 + 200 + 90}{7} = \frac{x + 540}{7} = x.$$

Solving this equation for x gives $x = 90$. Thus the data in nondecreasing order are $40, 50, 60, 90, 90, 100, 200$, so the median is 90 and the mode is 90, as required.

2002A 9. **(B)** Adding $1001C - 2002A = 4004$ and $1001B + 3003A = 5005$ yields $1001A + 1001B + 1001C = 9009$. So $A + B + C = 9$, and the average is

$$\frac{A + B + C}{3} = 3.$$

2014A
10. **Answer (B):** The five consecutive integers starting with a are a, $a + 1$, $a + 2$, $a + 3$, and $a + 4$. Their average is $a + 2 = b$. The average of five consecutive integers starting with b is $b + 2 = a + 4$.