AVERAGES

41. AVERAGE FORMULA

To find the average of a set of numbers, **add them up and divide by the number of numbers.**

$$\text{Average} = \frac{\text{Sum of the terms}}{\text{Number of terms}}$$

To find the average of the five numbers 12, 15, 23, 40, and 40, first add them:
$12 + 15 + 23 + 40 + 40 = 130$. Then divide the sum by 5: $130 \div 5 = 26$.

42. AVERAGE OF EVENLY SPACED NUMBERS

To find the average of evenly spaced numbers, just **average the smallest and the largest.** The average of all the integers from 13 through 77 is the same as the average of 13 and 77.

$$\frac{13 + 77}{2} = \frac{90}{2} = 45$$

43. USING THE AVERAGE TO FIND THE SUM

$$\text{Sum} = (\text{Average}) \times (\text{Number of terms})$$

If the average of ten numbers is 50, then they add up to 10×50, or 500.

44. FINDING THE MISSING NUMBER

To find a missing number when you're given the average, **use the sum.** If the average of four numbers is 7, then the sum of those four numbers is 4×7, or 28. Suppose that three of the numbers are 3, 5, and 8. These numbers add up to 16 of that 28, which leaves 12 for the fourth number.