

COMBINATIONS

- 2008B 1. A basketball player made 5 baskets during a game. Each basket was worth either 2 or 3 points. How many different numbers could represent the total points scored by the player?
- (A) 2 (B) 3 (C) 4 (D) 5 (E) 6
- 2004B 2. How many two-digit positive integers have at least one 7 as a digit?
- (A) 10 (B) 18 (C) 19 (D) 20 (E) 30
- 2018B 3. In the expression $(___ \times ___) + (___ \times ___)$ each blank is to be filled in with one of the digits 1, 2, 3, or 4, with each digit being used once. How many different values can be obtained?
- (A) 2 (B) 3 (C) 4 (D) 6 (E) 24

- 2010B 3. A drawer contains red, green, blue and white socks with at least 2 of each color. What is the minimum number of socks that must be pulled from the drawer to guarantee a matching pair?
- (A) 3 (B) 4 (C) 5 (D) 8 (E) 9
- 2018A 4. How many ways can a student schedule 3 mathematics courses—algebra, geometry, and number theory—in a 6-period day if no two mathematics courses can be taken in consecutive periods? (What courses the student takes during the other 3 periods is of no concern here.)
- (A) 3 (B) 6 (C) 12 (D) 18 (E) 24
- 2004B 5. In the expression $c \cdot a^b - d$, the values of a , b , c , and d are 0, 1, 2, and 3, although not necessarily in that order. What is the maximum possible value of the result?
- (A) 5 (B) 6 (C) 8 (D) 9 (E) 10