

Quiz/Homework

1. An ID number for a company is 6 symbols long. The last three symbols are numbers, the first symbol is a letter, and the second and third symbol can each be either a number or a letter. How many unique ID numbers can the company use?
2. John has narrowed his summer reading list to 9 books, but he thinks he'll only have time to read 6 of them over the summer. If he is to plan out which books he will read and in what order, what is the total number of possible summer reading plans?
3. An ice cream shop has 8 flavors of ice cream and 12 toppings available. How many possible ice cream cones can be made which have 3 toppings?
4. Which of the following is not a term in the arithmetic sequence which begins at 95 and increases by 17 each term?
 - (a) 95
 - (b) 129
 - (c) 180
 - (d) 233
 - (e) 265
5. An arithmetic sequence has terms $x_4 = 8$ and $x_{10} = 15$. Find x_{46} .
6. Which of the following expressions represents the arithmetic sequence 5, -3, -11, -17, ...?
 - (a) $x_k = 5 - 2k$
 - (b) $x_k = 5 + 8(k - 1)$
 - (c) $x_k = 7 - 2k$
 - (d) $x_k = 13 - 8k$
 - (e) $x_k = 13 - 8(k - 1)$