GRADE 12 ESSENTIAL
PROBLEM SOLVING
MAKE A TABLE

Name: _____
Date: _____

Different Strategies. There are many strategies to solve a problem. Guess and Check; Make a list; Work Backwards; Solve a Simpler Problem; Make a Table; Draw a Picture; Use Logical Reasoning; Use a Venn Diagram; and more.

MAKE A TABLE. A table is a tabulated list of calculations. Calculations are performed 'recursively' (a single step at a time) normally, until the answer is achieved.

Show Work: A numerical answer is not sufficient!

1. Zelda's parents put $100 in a savings account on Zelda's first birthday. Each year on her birthday they put in $200 more than on her last birthday.
   A. What will the total be when Zelda is 7 years old?
   B. What will the total be when Zelda is 10 years old?

Age	1	2	3	4						10
Amount	100	300	500	700						
Total	100	400	900							

2. Bob's aunt offered him a choice of rewards for getting good grades. If he chooses Plan 1, she will give him $10 for every "A" on his report card. If he chooses Plan 2, she will give him $1 for the first "A," plus $2 for the second "A," plus $4 for the third "A," and so on, doubling with each additional "A." Bob gets 8 different grades on his report card.

A. If Bob chooses Plan 1 and gets an "A" in every class, how much money will he receive?

B. If Bob chooses Plan 2 and gets an "A" in every class, how much money will he receive?

C. How many "A" grades must Bob receive to make Plan 2 the better choice?

3. A subway train left downtown with 121 passengers aboard. At the first stop, 1 person got off. At the second stop, 3 people got off. At the third stop, 5 people got off. At the fourth stop, 7 people got off. If this pattern continues:

A. How many people will get off at the 7th stop?
B. How many stops will the train have made when all the passengers are off?

Ans: 1) $4,900 ; $10,000 2) $80; $255, 6 3) 13, 11 stops