Example #1   STRAIGHT   Page 1 of 1
                              GRADES

A
EL = 5,100.00
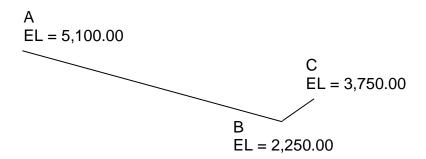
C
EL = 3,750.00

B
EL = 2,250.00

1.   What is the elevation of the midpoint of line AB ?

     3675.00 feet

2.   If the grade from A to B is –4.321% and the station at A is 4+56.78,
        what is the station at B ?

     664+13.73

3.   What is the horizontal distance in stations from B
        to the point with elevation 3456.78 on line AB ?

     -279.2826 stations

4.   If it is exactly 1.5 miles from B to C, what is the percent grade along this line ?

     +18.939%

5.   What is the elevation at the point 3500.00 feet (horizontally) from C on line BC ?

     3087.12 feet

6.   How far is it in stations from A to C ?

     738.7695 stations

7.   What zenith angle would be equivalent to –4.321% ?

     92°28'27"

8.   What is the zenith angle to line BC at B ?

     79°16'32"