



1. What is the elevation of the midpoint of line AB ?
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 ?
3. What is the horizontal distance in stations from B to the point with elevation 3456.78 on line AB ?
4. If it is exactly 1.5 miles from B to C, what is the percent grade along this line ?
5. What is the elevation at the point 3500.00 feet (horizontally) from C on line BC ?
6. How far is it in stations from A to C ?
7. What zenith angle would be equivalent to  $-4.321\%$  ?
8. What is the zenith angle to line BC at B ?