

# MATHEMATICS ANSWERS

## Level One

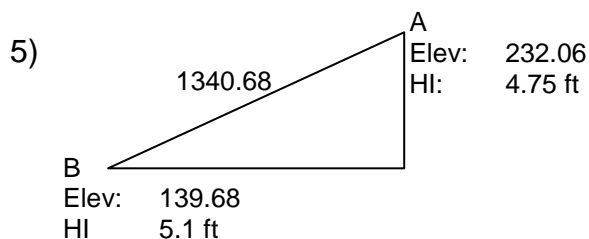
### Trigonometry

- 1) 6mm + 5ppm  
6mm + 5 x 2.4mm =  $\pm 18$ mm error

- 2)  
a. 718.84m  
b. 480.62m  
c. 3559.41m  
d. 527.89m  
e. 2458.357m

- 3)  
a. 718.517m  
b. 4893.672m  
c. 234.046m  
d. 98.261m  
e. 541.349m

- 4)  
a. 718.72m  
b. 4958.186m  
c. 235.375m  
d. 87.673m  
e. 541.567m



Convert feet  $\Rightarrow$  meters       $4.75 \times 0.3048 = 1.448\text{m}$   
    $5.10 \times 0.3048 = 1.554\text{m}$

Change in height                       $\Rightarrow 92.38\text{m} + 1.448 - 1.554$   
    $\Rightarrow = 92.274\text{m}$

Horizontal Distance                       $\Rightarrow 1337.50$

Angle of Elevation                       $\Rightarrow 3^\circ 57'$  (rounded off)