WKF F3 Ch10 Applications of Trigonometry Consolidated Assignment 6

Grade 9 Mathematics Term 1 Consolidated Assignment 6

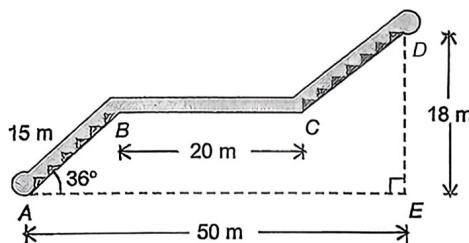Name: _____(____)   Date: _____

Class: _____   Grade: _____

Content: Ch.10 Applications of Trigonometry

1. In the figure, Oscar travels up an escalator AB which is 15 m long, with an inclination of 36°. Then, he walks 20 m horizontally from B to C. Finally, he travels up another escalator CD. The vertical distance and the horizontal distance he has travelled from A to D are 18 m and 50 m respectively.
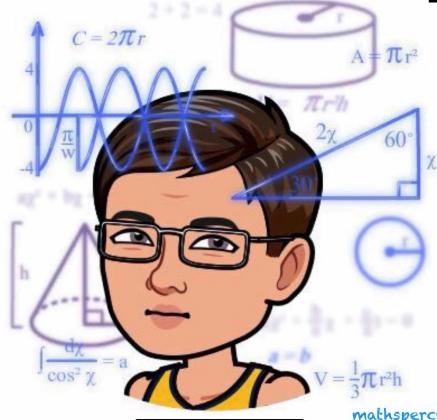

   (a) Find the vertical distance and the horizontal distance of AB.
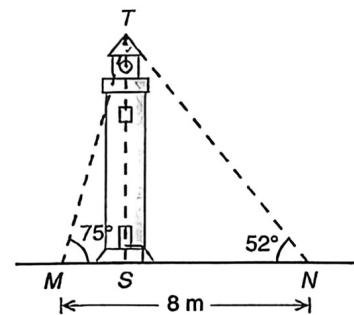   (b) Which escalator, AB or CD, is steeper? Explain your answer.

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2. Mandy and Nick are standing on the opposite sides of a tower *TS* at *M* and *N* respectively along a straight road *MSN*. The angles of elevation of the top *T* from *M* and *N* are 75° and 52° respectively. If Mandy and Nick are 8 m apart, find the height of the tower.
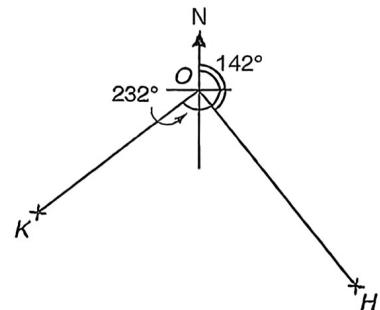
3. In the figure, a traffic accident occurs at O. Two ambulances send victims from O to two hospitals H and K in the directions 142° and 232° respectively. The two ambulances, both travel at 50 km/h, take 15 minutes and 12 minutes to reach hospitals H and K respectively.

(a) Find the distances between
  (i) O and H,
  (ii) O and K,
  (iii) H and K.

(b) In what direction is H from K?

END OF ASSIGNMENT