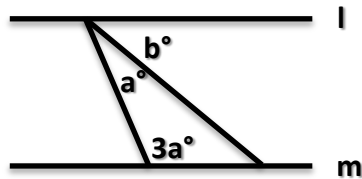


1. Seven students from Central High, 6 students from Washington High and 7 from North High have been selected to participate on a committee. The students from each High School shake hands with each student from each high school. How many handshakes take place?
2. Three dice, one red, one green, and the other blue are all thrown. The numbers that are shown are 3, 4, and 6. One and only one of the following statements is true.
 - The red die does not show a three
 - The blue die shows a three
 - The green die does not show a sixDetermine the number shown on each die.
3. In the figure above, line l is parallel to line m . If $b = 36$, what's the value of a ?



4. Picture shows five triangles arranged around a regular pentagon. All of the outside line segments are equal in length. If the perimeter of the figure indicated by the outside segments is 100 and the perimeter of the pentagon indicated by the dotted lines is 60, what is the area of one of the triangles?

