

Hill Side School

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Score	%
Tests	
Final	
Others	
Total	

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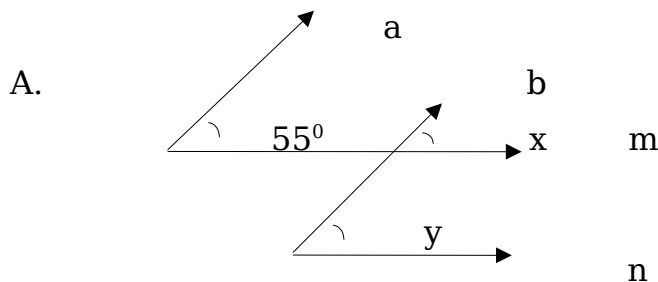
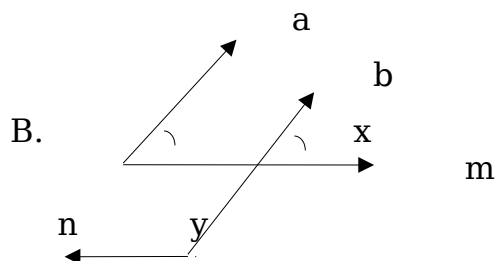
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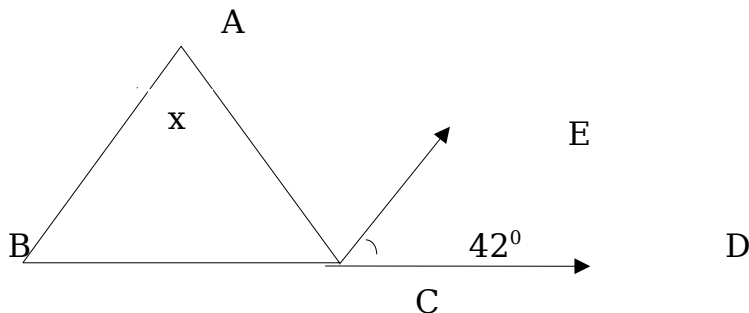
Full Name: _____ Grade: 7 Section: _____
 Subject: MATHEMATICS Year: 2012 E.C work sheet

I. Workout. (show the necessary steps clearly)

1. Given that $a \parallel b$ and $m \parallel n$. Find the value of x and y .



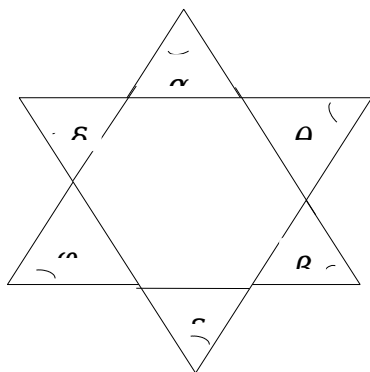
2. In the figure below $CE \parallel BA$. $\angle ACB = 42^\circ = \angle ECD$ Find an angle marked by x ?



3. Show that the measure of an exterior angle of a triangle is equal to the sum of the measure of the two opposite interior angles.
4. Find the sum of the measures of all the interior angles of a polygon with the following number of sides.
 - A. 8 sides
 - B. 15 sides
 - C. 40 sides
5. If the measure of the interior angles of a hexagon are x° , $2x^\circ$, 60° , $(x+30)^\circ$, $(x-10)^\circ$ and $(x+40)^\circ$, find
 - A. The value of x
 - B. The measure of the largest angle
6. If the total sum interior angles of a polygon are 1620° , how many sides does a polygon has?
7. Find the measure of each interior angle of a regular polygon with
 - A. 3 sides
 - B. 12 sides
 - C. 20 sides
8. What is the name of a polygon if the numbers of triangles formed by diagonals of a polygon which are drawn from one vertex are 8?
9. Can a regular polygon be drawn such that the measure of each interior angle is
 - A. 160°
 - B. 140°
 - C. 150°
 - D. 135°

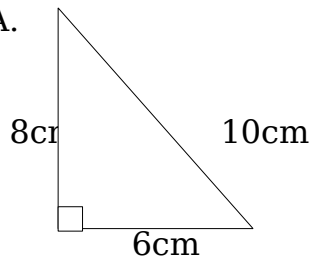
If your answer is yes, find the number of sides. If no, justify it.
10. The interior angle of a polygon is 60° . The other interior angles are all equal to 140° . How many sides does the polygon has?
11. In the figure, prove that

$$\alpha + \beta + \delta + \varepsilon + \theta + \varphi = 360^\circ$$

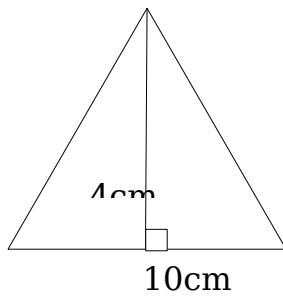


12. Find the area of the following triangles.

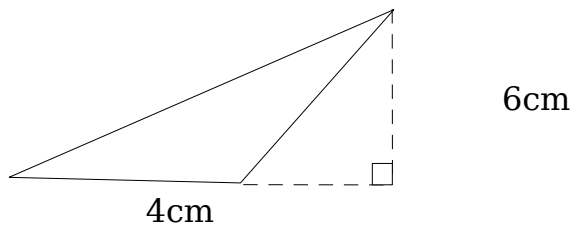
A.



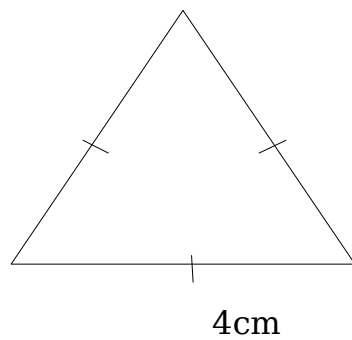
B.



C.



D.



13. Find the area of an equilateral triangle if its perimeter is 18cm.
14. Find the length of the sides of a parallelogram if its perimeter and the two altitudes are 40cm, 4cm and 6cm respectively.