

NAME _____ INDEX NUMBER _____

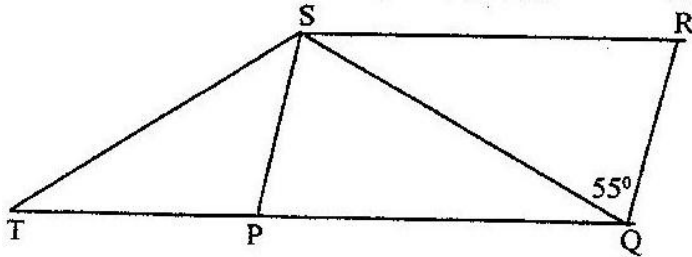
SCHOOL _____ DATE _____

ANGLES AND PLANE FIGURES

	<i>KCSE 1989 - 2012 Form 1 Mathematics</i>	Working space
1.	<p>1989 Q8 P2</p> <p>In the figure below, GJ is parallel to HI and FH is parallel to CJ. Angle AGB = 30°, and angle AHC = 63°. Find angle GCJ (2marks)</p> <div style="text-align: center; margin: 10px 0;"> </div>	
2.	<p>1991 Q10 P2</p> <p>In the figure below $AB \parallel DE$, $\angle ABC = 70^\circ$ and $\angle CDE = 23^\circ$. Find $\angle BCD$</p> <div style="text-align: center; margin: 10px 0;"> </div>	Working Space

3. 1997 Q3 P1

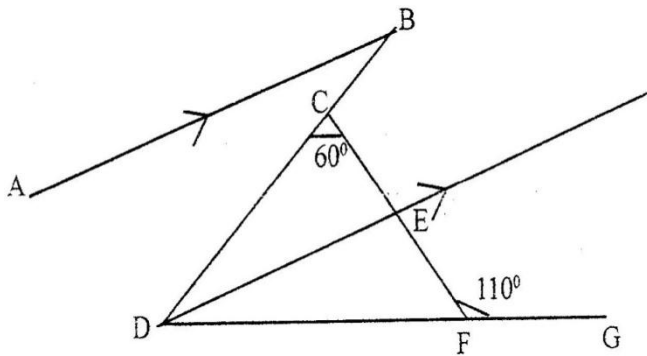
In the figure below PQRS is a rhombus, $\angle SQR = 55^\circ$, $\angle QST$ is a right angle and TPQ is a straight line



Find the size of the angle STQ

4. 1998 Q 4 P1

In the figure below, AB is parallel to DE, DE bisects angle BDG, angle DCF = 60° and angle CFG = 110°



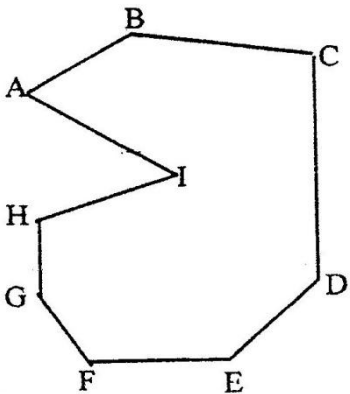
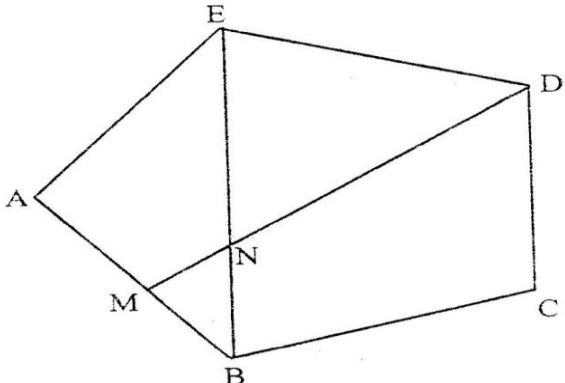
Find

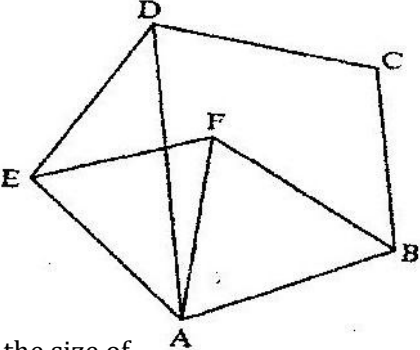
(a) $\angle CDF$

(b) $\angle ABD$

Give reasons for your answers

Working Space

5.	<p>1999 Q 3 P1</p> <p>Find by calculation the sum of all the interior angles in the figure ABCDEFGHI below</p> 	
6.	<p>2000 Q 3 P1</p> <p>In the figure below ABCD is a rectangular pentagon and M is the midpoint of AB. DM intersects EB at N.</p>  <p>Find the size of:</p> <p>(a) $\angle BAE$</p> <p>(b) $\angle BED$</p> <p>(c) $\angle BNM$</p>	
7.	<p>2001 Q 14 P1</p> <p>The interior angles of the hexagon are $2x^\circ$, $\frac{1}{2}x^\circ + 40^\circ$, 110°, 130° and 160°. Find the value of the smallest angle</p>	
8.	<p>2004 Q 2 P1</p> <p>The size of an interior angle of a regular polygon is 156°. Find the number of sides of the polygon.</p>	<p style="text-align: right;">Working Space</p>

9.	<p>2005 Q 5 P1</p> <p>The size of each interior angle of a regular polygon is five times the size of the exterior angle. Find the number of sides of the polygon. (3 marks)</p>	
10.	<p>2006 Q 4 P1</p> <p>In the figure below, ABCDE is a regular pentagon and ABF is an equilateral triangle (1mark)</p>  <p>Find the size of</p> <p>a) $\angle ADE$ (1 mark)</p> <p>b) $\angle AEF$ (1 mark)</p> <p>c) $\angle DAF$ (1 mark)</p>	
11.	<p>2007 Q 2 P1</p> <p>The size of an interior angle of a regular polygon is $3x^\circ$ while its exterior angle is $(x- 20)^\circ$. Find the number of sides of the polygon (3 marks)</p>	
12.	<p>2009 Q 10 P1</p> <p>The size of an interior angle of a regular polygon is $6\frac{1}{2}$ times that of its exterior angle. Determine the number of sides of the polygon (3 marks)</p>	

