GHS Sorted Past Paper - MC
S1-05 Introduction to Geometry

1. [23 - 24 S1 Final Exam - 07] (41%)

7. Which of the following must be true?

I. A cube is a right prism.

II. All equilateral triangles are acute-angled triangles.

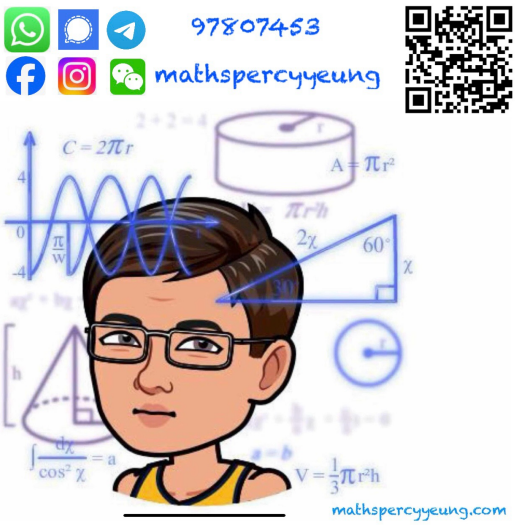
III. All interior angles of a hexagon are obtuse angles.

A. I and II only

B. I and III only

C. II and III only

D. I, II and III



2. [23 - 24 S1 Final Exam - 16] (56%)

16. In the figure, *ALKE*, *AGHC*, *EJIC*, *BGLF*, *BHID* and *FKJD* are straight lines. Which of the followings must be true?

I. $a+c+e=b+d+f$

II. $a+b+c+d+e+f=360°$

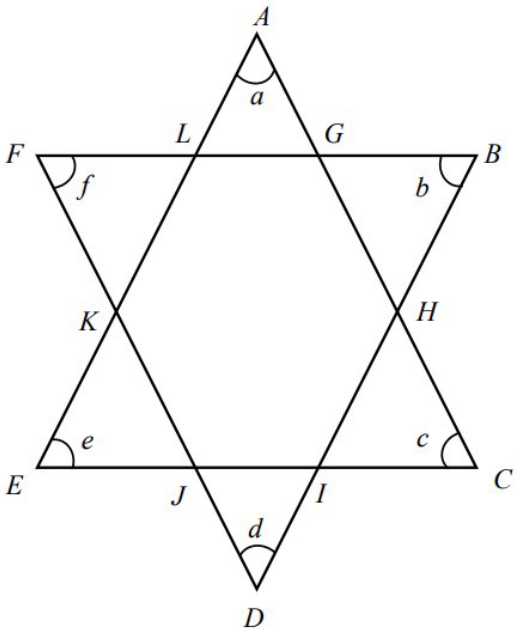
III. $a=b=c=d=e=f$

A. I and II only

B. I and III only

C. II and III only

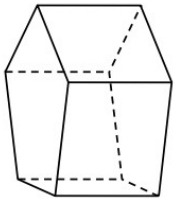
D. I, II and III



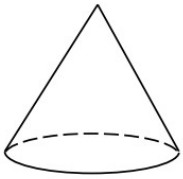
3. [23 - 24 S1 Standardized Test - 01] (73%)

1. Which of the following solids has a uniform cross-section?

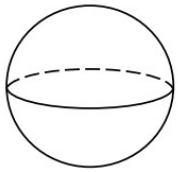
A.



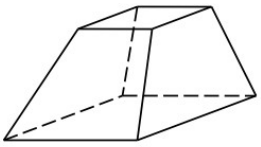
B.



C.



D.



4. [23 - 24 S1 Standardized Test - 02] (66%)

2. In ΔPQR, $\angle P = 26°$ and $\angle Q = 34°$. ΔPQR is

A. an acute-angled triangle.
B. a right-angled triangle.
C. an obtuse-angled triangle.
D. an isosceles triangle.

5. [23 - 24 S1 Standardized Test - 06] (28%)

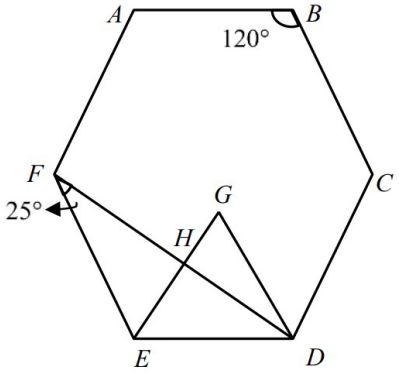
6. *ABCDEFG* is an equilateral polygon, which of the following must be true?

I. *AE* is a diagonal.
II. $AG = CD$
III. $\angle ABC = \angle DEF$

A. I and II only
B. I and III only
C. II and III only
D. I, II and III

6. [23 - 24 S1 Standardized Test - 07] (50%)

7. In the figure, *ABCDEF* is an equiangular hexagon and ΔGED is an equilateral triangle. *FHD* is a straight line. Find $\angle GDF$.



A. 40°
B. 35°
C. 30°
D. 25°

7. [24 - 25 S1 Final Exam - 15] (19%)

15. Which of the following statement(s) must be correct?

I. All equilateral polygons are convex polygons.
II. All regular polygons are equiangular polygons.
III. All lateral faces of a right pyramid are identical.

A. I only
B. II only
C. I and III only
D. II and III only

8. [24 - 25 S1 Standardized Test - 01] (81%)

1. In ΔABC, if $\angle A = 72°$ and $\angle B = 54°$, then what kind of triangle is it?

A. Acute-angled triangle

B. Right-angled triangle

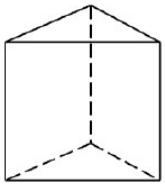
C. Obtuse-angled triangle

D. Unable to determine

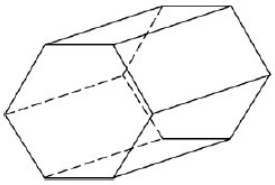
9. [24 - 25 S1 Standardized Test - 02] (97%)

2. Which of the following is not a polyhedron?

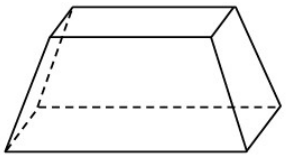
A.



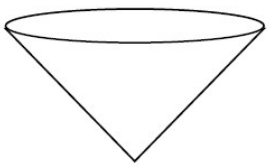
B.



C.



D.



10. [24 - 25 S1 Standardized Test - 06] (32%)

6. Which of the following must be true?

I. There are 5 diagonals in the equiangular polygon *PQRST*.
II. A decagon (10-sided polygon) is a convex polygon.
III. If *ABCDEF* is an equilateral polygon, then $\angle FAB = \angle CDE$.

A. I only

B. III only

C. I and II only

D. II and III only

11. [24 - 25 S1 Standardized Test - 07] (85%)

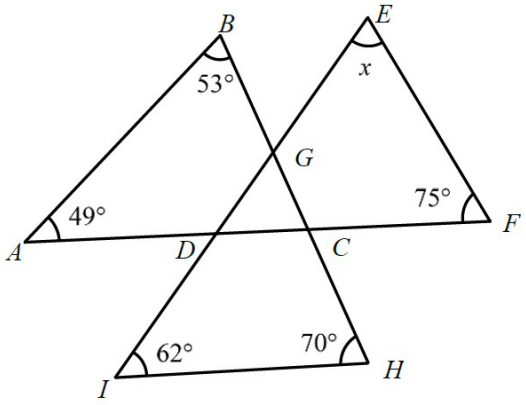
7. In the figure, *BGCH*, *EGDI* and *ADCF* are straight lines. Find the value of *x*.

A. 48°

B. 51°

C. 54°

D. 78°



GHS Sorted Past Paper - Conventional Questions
S1-05 Introduction to Geometry

1. [20 - 21 S1 Standardized Test - 02]

2. In **Figure 1**, $\angle ABC = 3x$, $\angle BCA = 50^\circ - x$ and $\angle CAB = 2x - 10^\circ$. Find the value of x.

(2 marks)

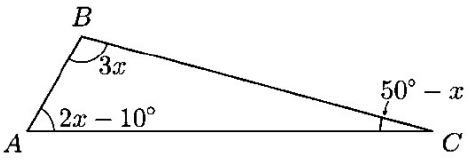


Figure 1

2. [20 - 21 S1 Standardized Test - 08]

8. In **Figure 4**, AD and BD bisect $\angle BAC$ and $\angle ABC$ respectively. If $\angle ADB = 112^\circ$, find $\angle ACB$.

(3 marks)

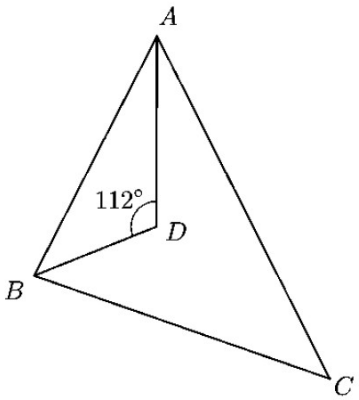


Figure 4

3. [23 - 24 S1 Final Exam - 05] (93%)

5. In **Figure 1**, ΔABC is a right-angled triangle with $\angle ABC = 90°$, BDC is a straight line. Find x and y. **(4 marks)**

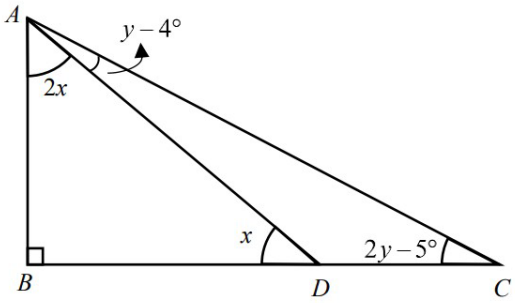


Figure 1

4. [23 - 24 S1 Standardized Test - 05] (78%)

5. Find a and b in **Figure 4**. **(4 marks)**

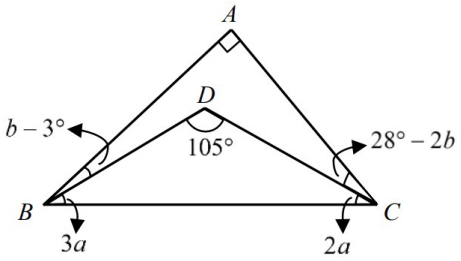


Figure 4

5. [24 - 25 S1 Final Exam - 12] (82%)

12. In **Figure 2**, D is a point on AC such that BD bisects $\angle ABC$. It is given that $\angle BAC = 50°$, $\angle ACB = 70°$ and $\angle BDC = x$. Find x. **(3 marks)**

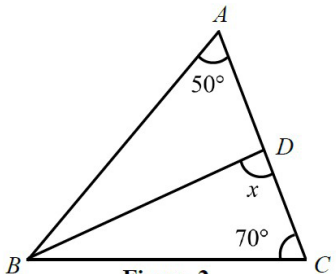


Figure 2

6. [24 - 25 S1 Standardized Test - 03] (85%)

3. In **Figure 2**, AEC and BED are straight lines. It is given that $\angle BAC = \angle ACB = x$, $\angle EBC = 38°$, $\angle ABE = x + 4°$, $\angle ECD = 62°$ and $\angle BDC = y$. Find the values of x and y.

(3 marks)

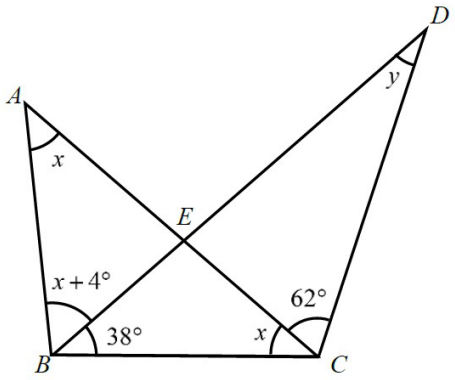


Figure 2

7. [24 - 25 S1 Standardized Test - 04] (66%)

4. **Figure 3** shows a regular pentagon $ABCDE$, where $\angle CDE = 108°$. If $\angle FAE = 20°$ and $\angle DCE = 36°$, find $\angle AFE$. **(4 marks)**

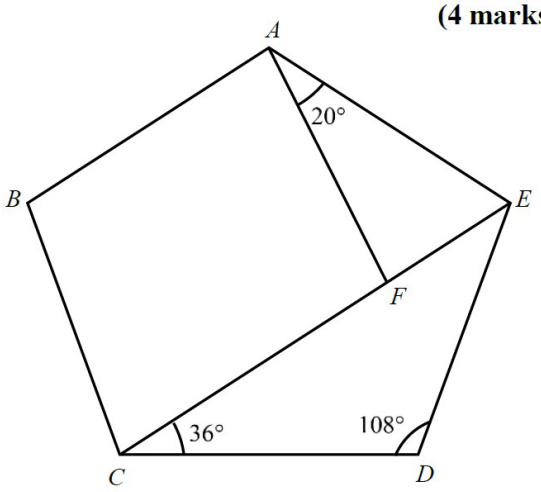


Figure 3

8. [24 - 25 S2 Mid-year Exam - 03] (98%)

3. In **Figure 1**, ABC is a straight line. Write down the value of x . $x =$ _____ **(1 mark)**

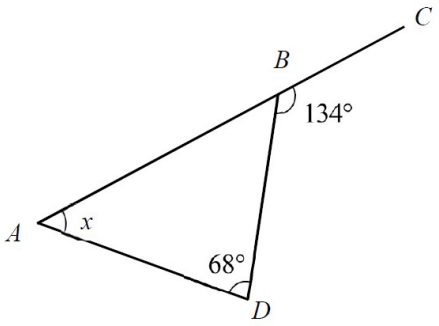


Figure 1