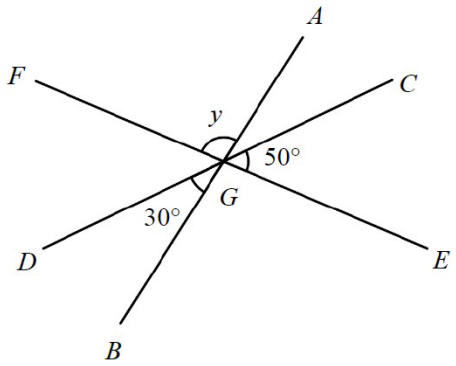
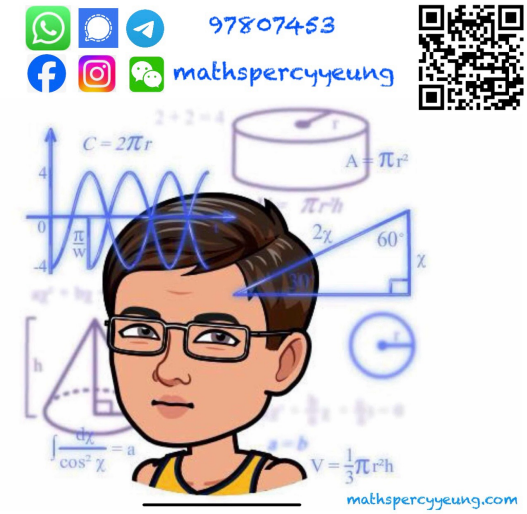
GHS Sorted Past Paper - MC
S1-11 Angles related to Lines

1. [20 - 21 S1 Final Exam - 06] (97%)

6. In the figure, AB, CD and EF intersect at G. Find the value of y.

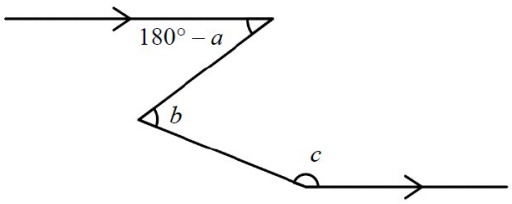




A. 30°
B. 50°
C. 80°
D. 100°

2. [20 - 21 S1 Final Exam - 21] (38%)

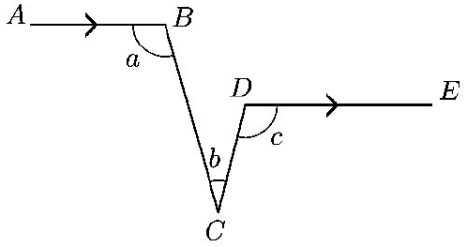
21. According to the figure, which of the following must be true?



A. $a+b+c=180°$
B. $a+b+c=360°$
C. $c=a+b$
D. $a-b+c=180°$

3. [20 - 21 S1 Standardized Test - 08] (41%)

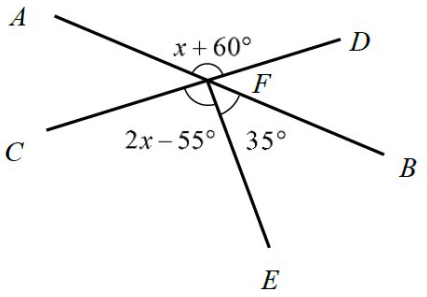
8. According to the figure, which of the following must be true?



A. $a + b + c = 180^o$
B. $a + b + c = 360^o$
C. $a = b + c$
D. $a - b + c = 180^o$

4. [21 - 22 S1 Final Exam - 07] (88%)

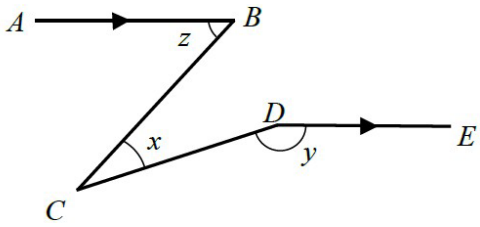
7. In the figure, AB and CD intersect at F, find x.



A. 80°
B. 85°
C. 100°
D. 115°

5. [21 - 22 S1 Final Exam - 17] (35%)

17. In the figure, which of the following must be true?

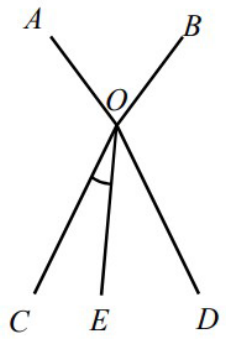


A. $y = x + z$
B. $y + z = x + 180°$
C. $x + y = z + 180°$
D. $x + y = 180° - z$

6. [22 - 23 S1 Final Exam - 08] (82%)

8. In the figure, $\angle AOB = 80°$, $\angle AOC = \angle BOD = 120°$ and $\angle EOD = 30°$. Find $\angle COE$.

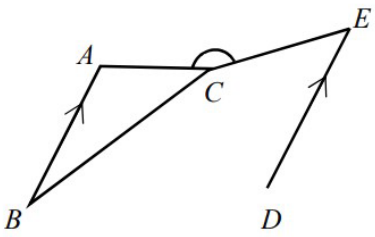
A. $10°$
B. $30°$
C. $40°$
D. $50°$



7. [22 - 23 S1 Final Exam - 21] (84%)

21. In the figure, $AB // ED$, $\angle BAC = 100°$ and $\angle CED = 50°$. Find $\angle ACE$.

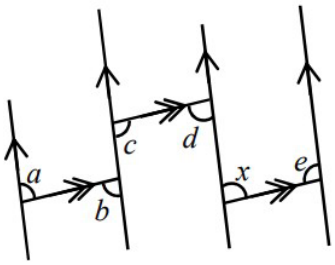
A. $120°$
B. $130°$
C. $150°$
D. $170°$



8. [22 - 23 S1 Final Exam - 22] (51%)

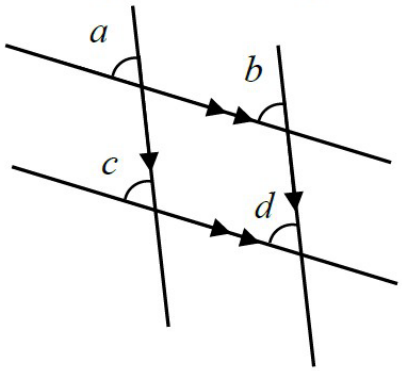
22. In the figure, $a + b + c + d + e =$

A. $540°$.
B. $540° - x$.
C. $360° - x$.
D. $360° + x$.



9. [22 - 23 S1 Standardized Test - 03] (90%)

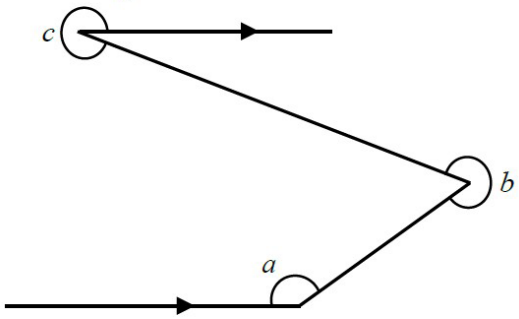
3. In the figure, which of the following is **NOT** a pair of corresponding angles?



A. a and c
B. b and c
C. b and d
D. c and d

10. [22 - 23 S1 Standardized Test - 09] (38%)

9. In the figure, $c =$

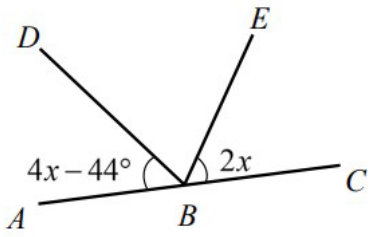


A. $a+180°$.
B. $180°-a+b$.
C. $180°+a-b$.
D. $360°+a-b$.

11. [23 - 24 S1 Final Exam - 12] (85%)

12. In the figure, ABC is a straight line and BE bisects $\angle DBC$. Find the value of x.

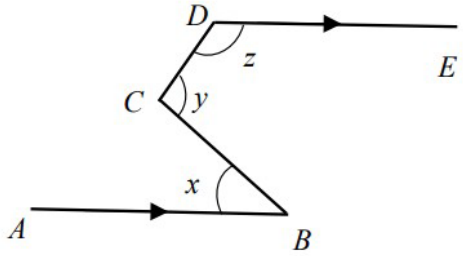
A. 22°
B. 28°
C. 44°
D. 56°



12. [23 - 24 S1 Final Exam - 23] (50%)

23. In the figure, AB is parallel to DE. Which of the following(s) must be correct?

I. $x + y = z$
II. $y + z - x = 180°$
III. $x + y + z = 360°$

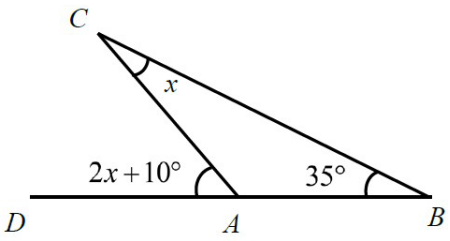


A. I only
B. II only
C. I and II only
D. II and III only

13. [24 - 25 S1 Final Exam - 05] (67%)

5. In the figure, DAB is a straight line. It is given that $\angle ACB = x$, $\angle DAC = 2x + 10°$ and $\angle ABC = 35°$. Find x.

A. 45°
B. 25°
C. 22.5°
D. 12.5°



14. [24 - 25 S1 Final Exam - 11] (83%)

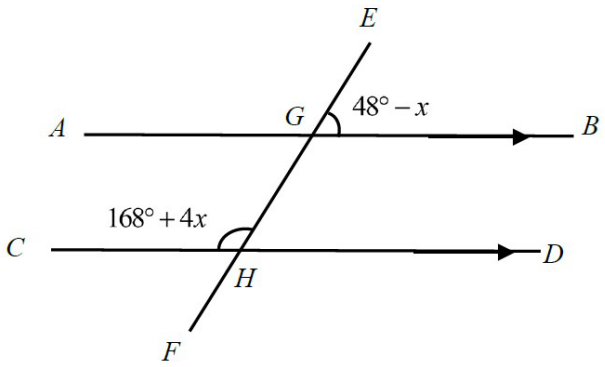
11. In the figure, AB and CD intersect EF at G and H respectively. It is given that $\angle CHG = 168° + 4x$ and $\angle EGB = 48° - x$. If $AB // CD$, find x.

A. $-24°$

B. $-12°$

C. $12°$

D. $24°$



15. [24 - 25 S1 Final Exam - 22] (69%)

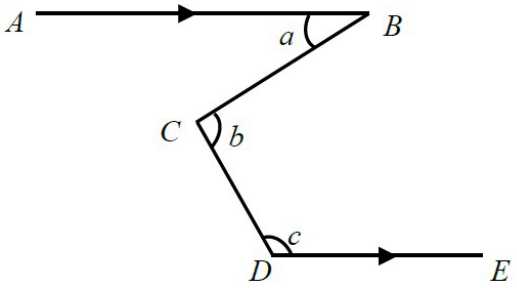
22. In the figure, $AB // DE$. Which of the following must be correct?

A. $b = 90°$

B. $a + b = c$

C. $b + c - a = 180°$

D. $a + b + c = 360°$



16. [20 - 21 S2 Final Exam - 10] (78%)

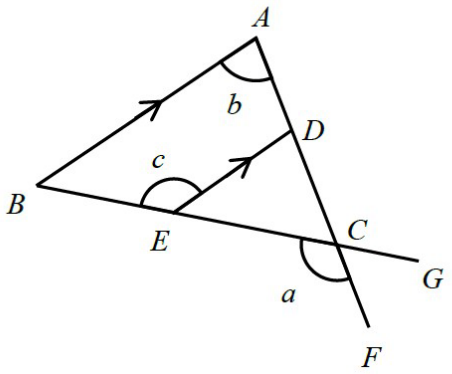
10. In the figure, AB // DE. $ADCF$ and $BECG$ are straight lines. Express c in terms of a and b.

A. $c = 180° - a + b$

B. $c = 180° - a - b$

C. $c = a + b$

D. $c = a - b$



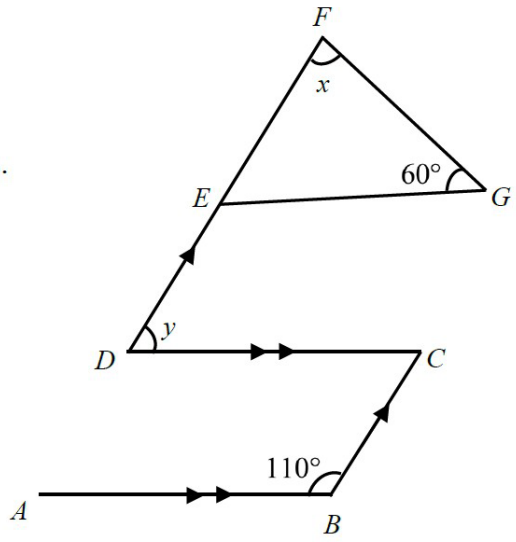
17. [24 - 25 S1 Final Exam - 23] (56%)

23. In the figure, DEF is a straight line. It is given that $AB//DC$ and $BC//DF$. Which of the following statements must be correct?

I. $y = 70°$.

II. If $x = 50°$, then $DC//EG$.

III. $\angle EDC$ and $\angle ABC$ are supplementary angles.



A. I and II only

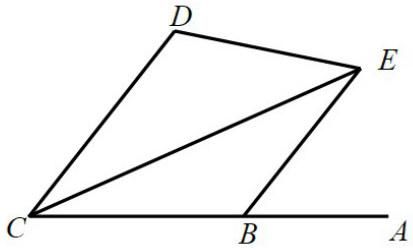
B. I and III only

C. II and III only

D. I, II and III

18. [22 - 23 S1 Standardized Test - 08] (46%)

8. In the figure, ABC is a straight line. $CD // BE$ and CE bisects $\angle DCB$. If $\angle CDE = 126°$ and $\angle DEC = 32°$, then $\angle ABE =$



A. 76°.

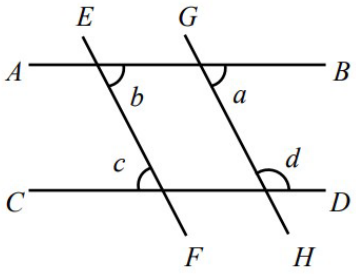
B. 64°.

C. 54°.

D. 44°.

19. [22 - 23 S2 Final Exam - 10] (57%)

10. The figure shows AB and CD with two transversals EF and GH. Which of the following condition(s) can be used to prove that $AB \parallel CD$?

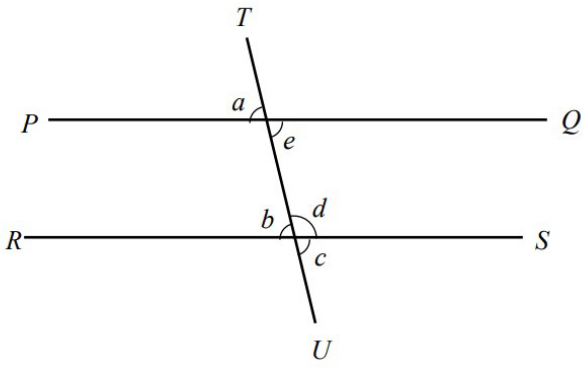


I. $a = b$
II. $a = c$
III. $a + d = 180°$

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

20. [22 - 23 S2 Mid-year Exam - 06] (75%)

6. In the figure, TU intersects PQ and RS. Under which of the following conditions would PQ and RS be parallel?



I. $b = c$
II. $a = c$
III. $e + d = 180°$

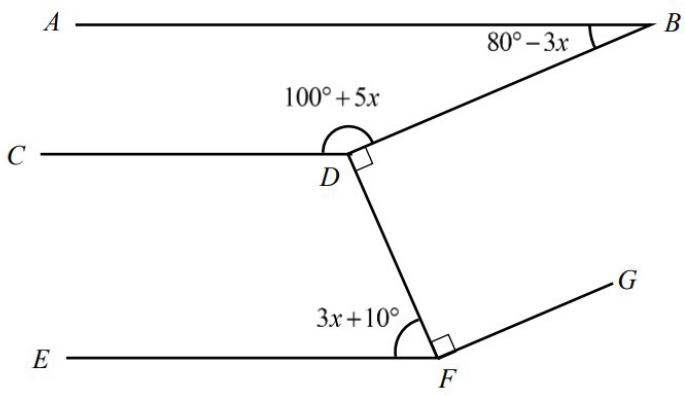
A. I only
B. II only
C. I and III only
D. II and III only

21. [22 - 23 S2 Mid-year Exam - 18] (51%)

18. In the figure, it is given that $0° < x < 20°$. Which of the following pairs of lines must be parallel?

I. *BD* and *GF*
II. *AB* and *EF*
III. *AB* and *CD*

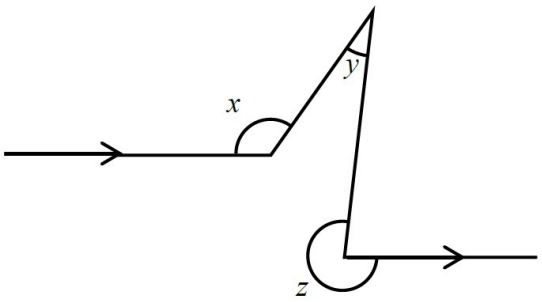
A. I and II only
B. I and III only
C. II and III only
D. I, II and III



22. [23 - 24 S3 Final Exam - 08] (53%)

8. According to the figure, which of the following must be true?

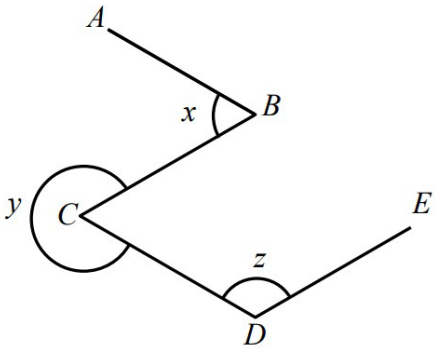
A. $x + y = z$
B. $x + y - z = 180°$
C. $-x + y + z = 180°$
D. $x - y + z = 360°$



23. [23 - 24 S3 Standardized Test - 05] (93%)

5. In the figure, *AB* // *CD* and *CB* // *DE*. Which of the following statements is true?

A. $y - z + 180° = 0°$
B. $x - z = 180°$
C. $x + y = 360°$
D. $2x + y + z = 440°$



24. [24 - 25 S3 Final Exam - 09] (67%)

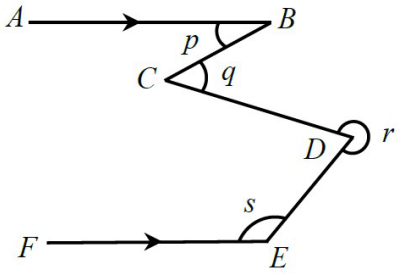
9. In the figure, AB // FE. Which of the following must be true?

A. $p+q+r+s=540°$.

B. $p-q+r+s=360°$.

C. $-p+q+r-s=180°$.

D. $-p-q+r-s=90°$.



25. [24 - 25 S3 Standardized Test - 07] (39%)

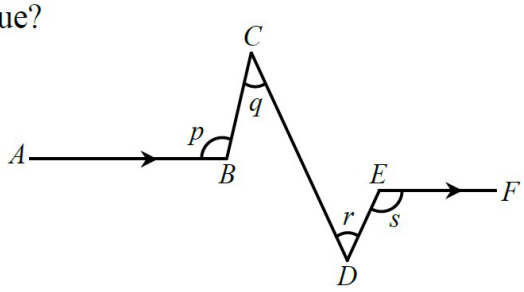
7. In the figure, AB // EF. Which of the following must be true?

A. $p+q=r+s$

B. $p+r=q+s$

C. $p-q-r+s=180°$

D. $p+q+r+s=360°$



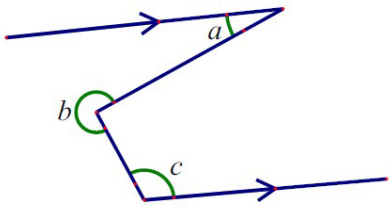
26. [20 - 21 S5 Mid-year Exam - 03] (69%)

3. According to the figure, which of the following must be true?

I. $a+c=180°$

II. $a+b-c=180°$

III. $b-a=180°$



A. I only

B. II only

C. I and III only

D. II and III only

27. [24 - 25 S6 Mock Exam - 20] (52%)

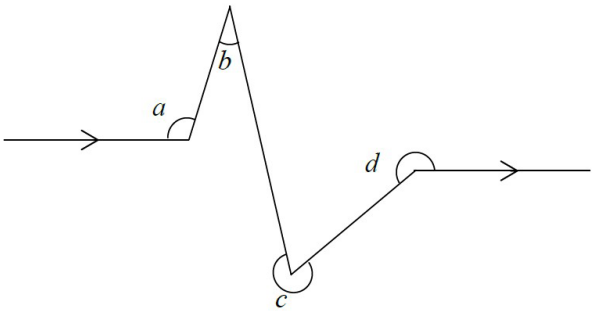
20. According to the figure, which of the following must be true?

A. $a+d=b+c$

B. $a+c=b+d$

C. $a-b+c-d=180°$

D. $a+b-c+d=180°$



GHS Sorted Past Paper - Conventional Questions
S1-11 Angles related to Lines

1. [20 - 21 S1 Final Exam - 09]

9. In **Figure 3**, BCF and DCE are straight lines. Prove that $AB \parallel DE$. **(3 marks)**

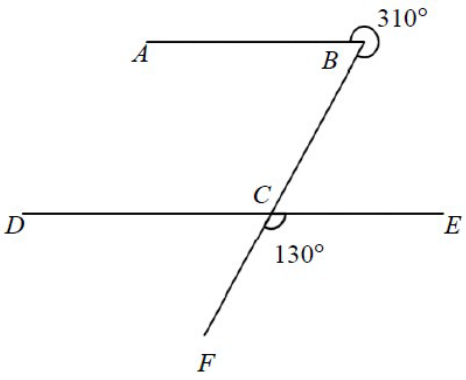


Figure 3

2. [20 - 21 S1 Final Exam - 15]

15. In **Figure 6**, $PQ \parallel ST$, $\angle PQR = 65°$ and $\angle RST = 130°$. Find $\angle QRS$. **(3 marks)**

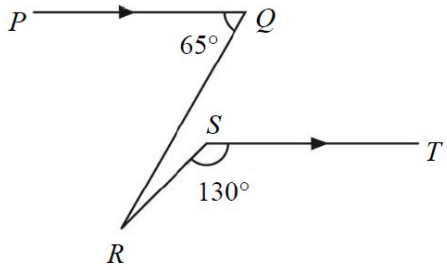


Figure 6

3. [20 - 21 S1 Standardized Test - 03]

3. In **Figure 2**, EBD is a straight line, $AB//CD$ and reflex $\angle BDC = 318^{\circ}$. Find the value of x.
(3 marks)

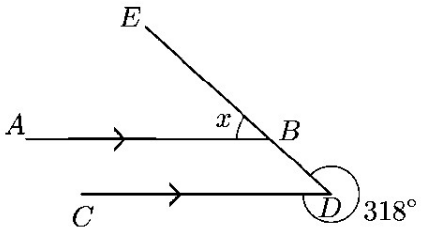


Figure 2

4. [20 - 21 S1 Standardized Test - 06]

6. In **Figure 3**, D is a point on CE. AD intersects BF at G. If $\angle CGD = 100^\circ$, $\angle GCD = 50^\circ$ and $\angle AGB = 30^\circ$, prove that $BF \parallel CE$.

(3 marks)

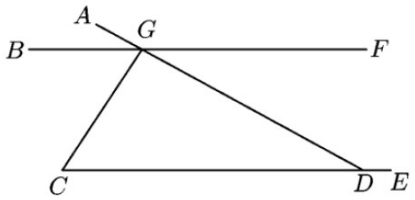


Figure 3

5. [22 - 23 S1 Final Exam - 20] (39%)

20. In **Figure 9**, it is given that $DG \parallel EF$. $\angle ABD = 50°$, $\angle BDE = 75°$ and $\angle DEF = 130°$. If BC bisects $\angle ABD$, prove that $BC \parallel FE$. **(2 marks)**

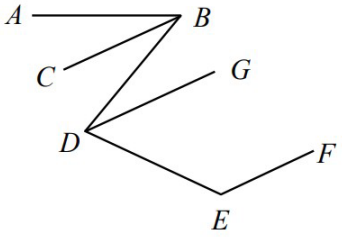


Figure 9

6. [23 - 24 S1 Final Exam - 15] (72%)

15. In **Figure 4**, ABC, CFH and EFG are straight lines and DB // CE.

(a) Find $\angle BCE$. **(3 marks)**

(b) Prove that AC parallel to EF. **(3 marks)**

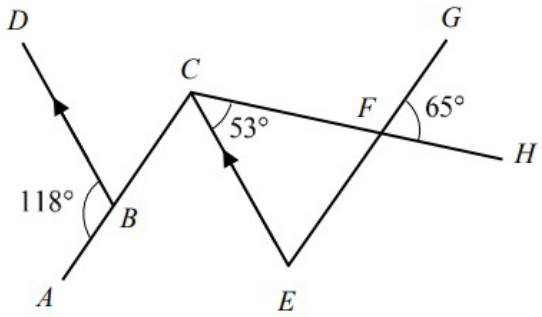


Figure 4

7. [24 - 25 S1 Final Exam - 01] (97%)

1. **Figure 1** shows ΔABC. Write down the value of x. _____ **(1 mark)**

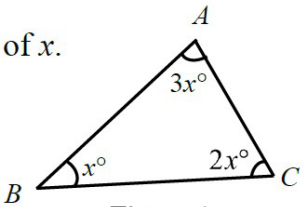


Figure 1

8. [24 - 25 S1 Final Exam - 19] (61%)

19. In **Figure 5**, CGD, $AEFB$ and EGH are straight lines. It is given that $AB//CD$, $\angle DGF = 65°$, $\angle CGH = 130°$, $\angle GEF = 2x + 30°$ and $\angle GFD = 6x + 5°$.

(a) Find x. **(4 marks)**

(b) Prove that $EG//FD$. **(3 marks)**

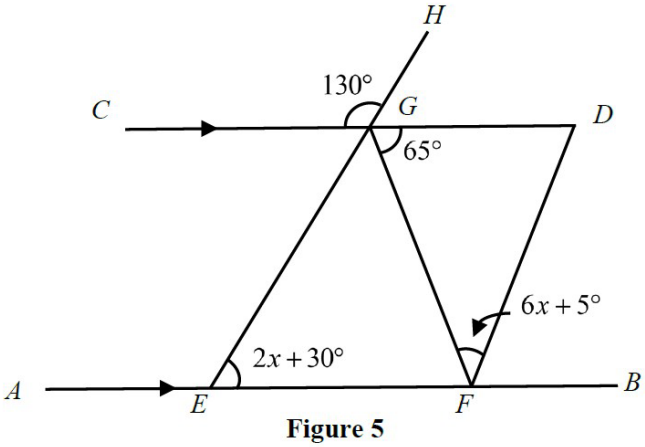


Figure 5

9. [22 - 23 S1 Standardized Test - 02] (81%)

2. In **Figure 1**, ABC is a triangle and ACD is a straight line. It is given that $AB \parallel DE$, $\angle ABC = 66°$ and $\angle ACB = 26°$. Find

(a) reflex$\angle ABC$, **(2 marks)**

(b) $\angle ADE$. **(3 marks)**

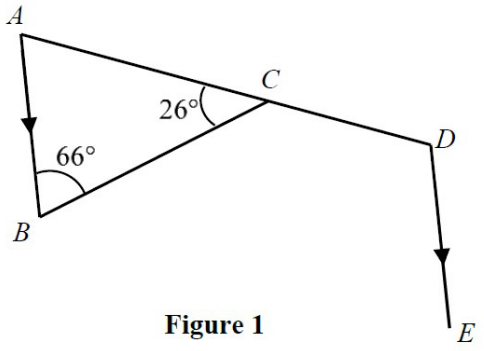


Figure 1

10. [22 - 23 S1 Standardized Test - 04] (45%)

4. In **Figure 3**, ABC is a triangle and $BCDE$ is a straight line. It is given that $\angle ABC = 85° - x$, $\angle BAC = 75° - 2x$ and $\angle EDF = 20° + 3x$. Prove that $AC \parallel DF$. **(3 marks)**

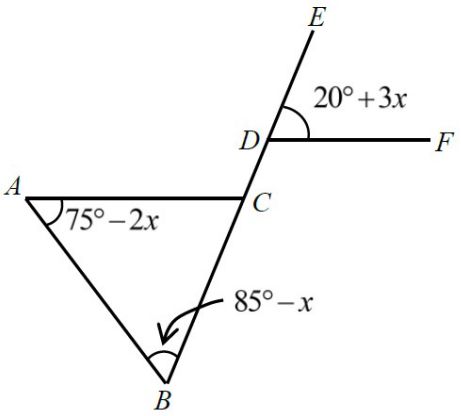


Figure 3

11. [21 - 22 S2 Final Exam - 11] (68%)

11. In **Figure 3**, $ABFDE$ is a pentagon and C is a point on DF. It is given that $\angle BAE = 92°$, $\angle AED = 132°$, $\angle EDC = 96°$ and $\angle BFC = 69°$.

(a) Find $\angle ABF$. **(2 marks)**

(b) If $\angle ABC = 82°$, prove that $\triangle BCF$ is an isosceles triangle. **(2 marks)**

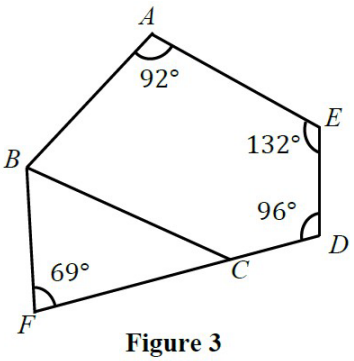


Figure 3

12. [22 - 23 S2 Mid-year Exam - 05] (72%)

5. In **Figure 2**, $\angle CDB = 100°$ and reflex $\angle ABD = 280°$. Prove that $AB \,//\, CD$. **(2 marks)**

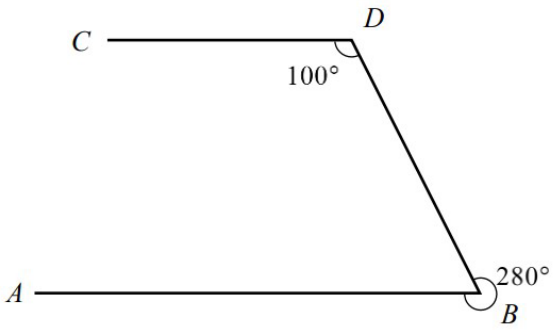


Figure 2

13. [22 - 23 S1 Final Exam - 11] (65%)

11. In **Figure 3**, $CD \,//\, EF$. AB intersects CD, DE and EF at G, H and J respectively. It is given that $\angle AGC = 120° - 3x$, $\angle GHD = 6x$ and $\angle HEF = 3x$.

(a) Find x. **(3 marks)**

(b) Show that $EF \perp AB$. **(2 marks)**

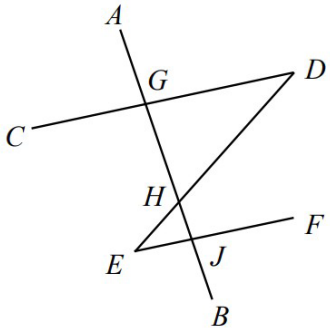


Figure 3

14. [22 - 23 S2 Mid-year Exam - 09] (54%)

9. In **Figure 5**, $AGEB$, ADC and DEF are straight lines. It is given that $\angle CAB = 130° - 2k$ and $\angle ACB = k + 30°$.

(a) Express $\angle ABC$ in terms of k. **(2 marks)**

(b) If $\angle BEF = 2k + 10°$ and $\angle GFE = k - 10°$, prove that $FG \,//\, BC$. **(2 marks)**

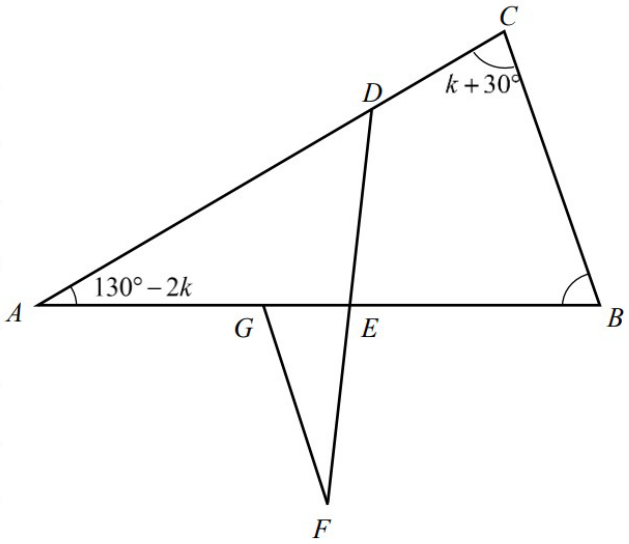


Figure 5

15. [23 - 24 S3 Standardized Test - 04] (62%)

4. In **Figure 2**, TQS and RWS are straight lines, $\angle TQP = x$, $\angle RWV = y$ and $PQ \,//\, RS$. It is given that $x + y = 180°$. Prove that $TS \,//\, WV$. **(2 marks)**

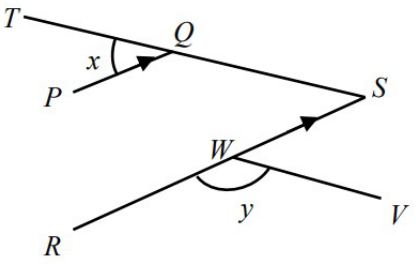


Figure 2

16. [23 - 24 S3 Final Exam - 11] (56%)

11. In **Figure 4**, AEB and CHG are straight lines, $\angle CHE = 130°$, $\angle FEH = x$, $\angle DHG = y$. It is given that FE bisects $\angle AEH$ and $2x - y = 50°$. Prove that $AB \,//\, HD$. **(3 marks)**

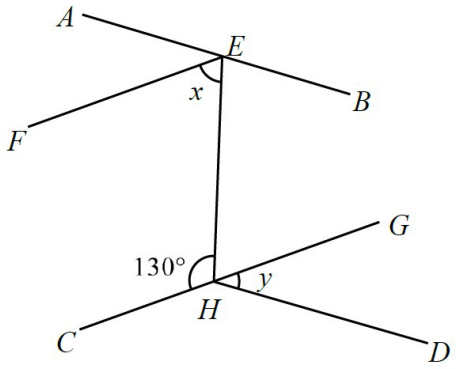


Figure 4