

TB(1B) Ch.11-Congruent Triangles

1. [16-17 Final Exam #10]

In **Figure 3**, DEC is a straight line and $AB \parallel DC$. It is given that $\angle BAE = 55^\circ$, $\angle CBE = 46^\circ$, $\angle BCE = 72^\circ$ and $\angle ADE = 62^\circ$.

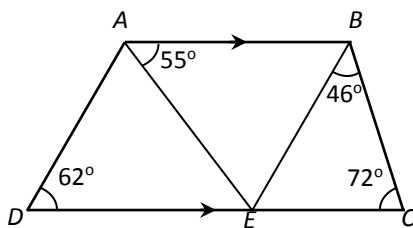


Figure 3

- (a) Find $\angle ABE$ and $\angle AED$. (2 marks)
- (b) Prove that $\triangle ABE \cong \triangle EDA$. (2 marks)
- (c) Prove that $AD \parallel BE$. (2 marks)

2. [17-18 Final Exam #2]

In **Figure 2**, ADB , AEC , BFE and CFD are straight lines. It is given that $\triangle ABE \cong \triangle ACD$, $\angle CAD = 35^\circ$, $\angle ACD = 25^\circ$, $BD = 4$ cm and $AE = AD = 5$ cm.

- (a) Find $\angle AEB$. (2 marks)
- (b) Prove that $\triangle DBF \cong \triangle ECF$. (2 marks)

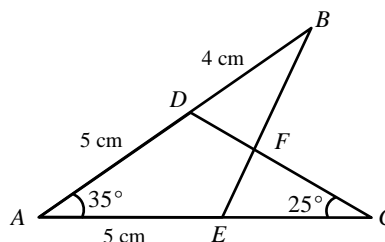


Figure 2

3. [18-19 S Test II, #7]

In **Figure 4**, ABC is a straight line. It is given that $\angle EAB = \angle DBC$ and $AC \parallel ED$.

- (a) Prove that $AE \parallel BD$. (1 mark)
- (b) Prove that $\triangle ABE \cong \triangle DEB$. (3 marks)

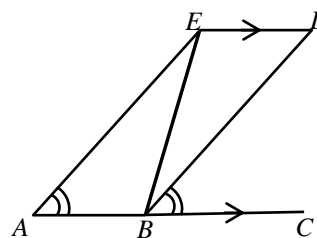


Figure 4

4. [18-19 Final Exam #12]

In **Figure 7**, APB and AQC are straight lines. BQ and CP cuts at R . It is known that $AQ = AP$, $CP \perp AB$ and $BQ \perp AC$. Is $PB = QC$? Explain your answer. (3 marks)

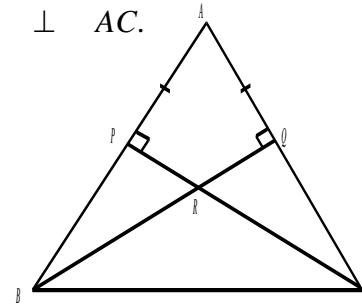


Figure 7

5. [20-21 Final Exam #11]

In **Figure 5**, BCD is a straight line. It is given that $AB = AD$ and $\angle ACB = \angle ACD = 90^\circ$.

(a) Prove that $\triangle ABC \cong \triangle ADC$.

(2 marks)

(b) If $BC = 6$ cm, write down the length of BD .

(1 mark)

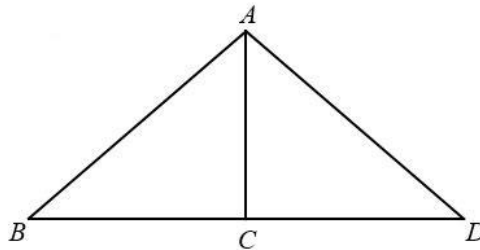
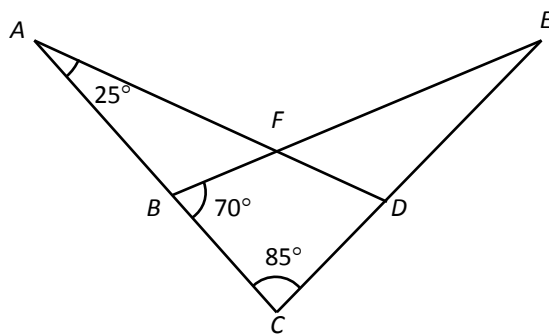


Figure 5

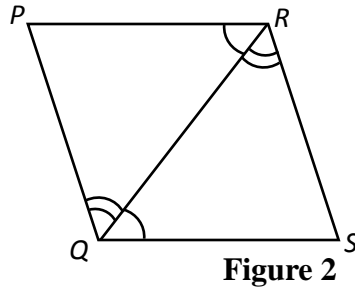
6. [20-21 Final Exam, #18]

In **Figure 8**, ABC , CDE , AFD and BFE are straight lines. It is given that $BC = CD$, $\angle BAF = 25^\circ$, $\angle FBC = 70^\circ$ and $\angle BCD = 85^\circ$. Prove $\triangle ACD \cong \triangle ECB$. (3 marks)



7. [20-21 S. 2 Final Exam #2]

Refer to **Figure 2**, answer the following questions on the given blanks.



(a) Which triangle is congruent to $\triangle PQR$?

Answer: $\triangle PQR \cong$ _____

(1 mark)

(b) State the abbreviation why the above triangles in (a) are congruent according to the given information in **Figure 2**.

Answer: _____

(1 mark)

~ End ~