

4-5 SOL Questions on Congruency

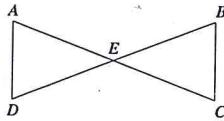
Name: _____

Time Start: _____ Finish: _____

Total Time = _____

1.

Given: In this figure, \overline{AC} and \overline{BD} bisect each other.

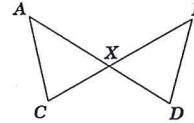


Based on the information given, which triangle congruence theorem could be used to prove $\triangle AED \cong \triangle CEB$?

- A Angle-Angle-Side (AAS)
- B Angle-Side-Angle (ASA)
- C Side-Angle-Side (SAS)
- D Side-Side-Side (SSS)

2.

17 Given: \overline{AD} and \overline{BC} intersect at X
 $AX = XB$
 $CX = XD$

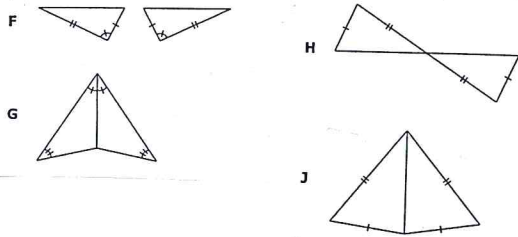


Which congruency statement is true?

- A $\angle ACX \cong \angle BXD$
- B $\angle ACX \cong \angle DXB$
- C $\angle ACX \cong \angle BDX$
- D $\angle ACX \cong \angle DBX$

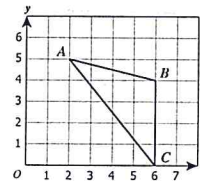
3.

With the information given in the drawings, which pair of triangles can be proven congruent by the Side-Angle-Side postulate?



4.

Coordinates $A(2, 5)$, $B(6, 4)$, and $C(6, 0)$ are connected to form $\triangle ABC$.

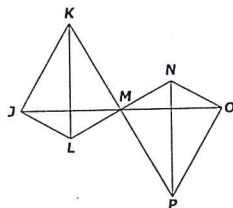


If $\triangle CDA$ is congruent to $\triangle ABC$, what are the coordinates of D ?

- A (1, 1)
- B (1, 2)
- C (2, 2)
- D (2, 1)

5.

Given: M is the midpoint of \overline{LN} and \overline{KP} .



The given information is sufficient to prove $\triangle KML \cong \triangle PMN$ by which postulate/theorem?

- A Angle-Side-Angle
- B Side-Side-Side
- C Side-Angle-Side
- D Angle-Angle-Side

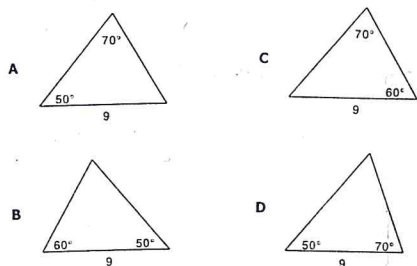
6.

In rectangle $ABCD$, the slope of \overline{AB} is $\frac{1}{2}$. What is the slope of \overline{CD} ?

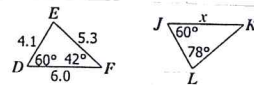
- A -2
- B $-\frac{1}{2}$
- C $\frac{1}{2}$
- D 2

7.

Which triangle below is not congruent to the other three triangles?



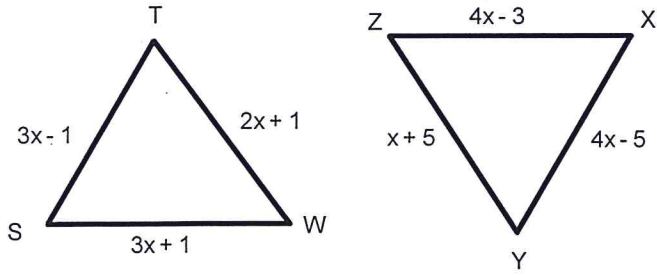
8.



What value of x makes $\triangle DEF \cong \triangle JLK$?

- F $x = 9.4$
- G $x = 6.0$
- H $x = 5.3$
- J $x = 4.1$

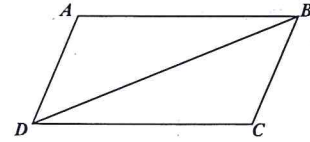
9. What value of x makes \overline{AE}



- A. 2
- B. 3
- C. 4
- D. 6

10.

Given: $ABCD$ is a parallelogram.



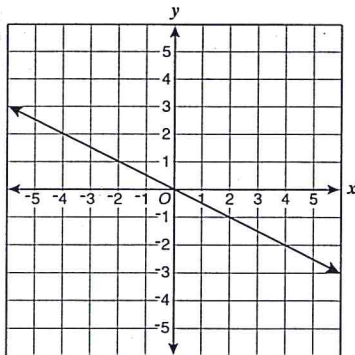
Prove: $\triangle ABD \cong \triangle CDB$

- | | |
|-------------------------------------|---|
| $\angle A \cong \angle C$ | Opposite angles of a parallelogram are congruent. |
| $\overline{AD} \cong \overline{BC}$ | Opposite sides of a parallelogram are congruent. |
| $\overline{AB} \cong \overline{CD}$ | Opposite sides of a parallelogram are congruent. |

Therefore, $\triangle ABD \cong \triangle CDB$ by which postulate/theorem?

- A SSA
- B ASA
- C SAS
- D AAS

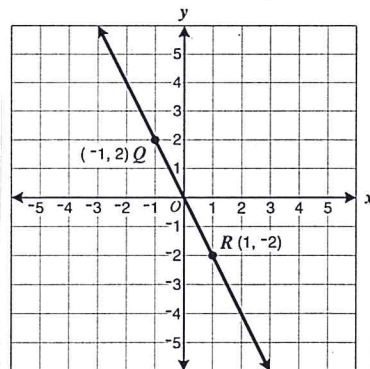
11.



What is most likely the slope of the line graphed above?

- F -1
- G $-\frac{1}{2}$
- H $\frac{1}{2}$
- J 1

12.



Which two points determine a line parallel to \overline{QR} ?

- A (1, 1) and (2, -1)
- B (-1, -1) and (-2, -3)
- C (1, 4) and (5, 2)
- D (2, 1) and (-2, -1)