#18

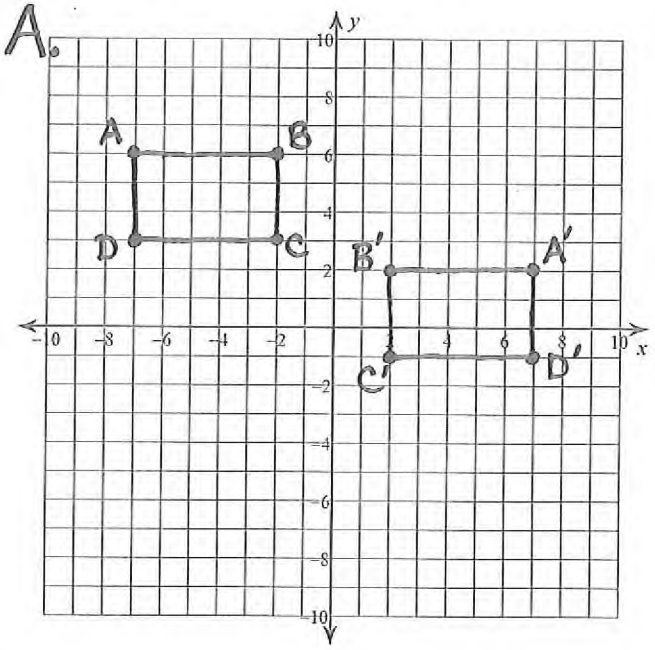
CONGRUENCE QUIZ

Name _____

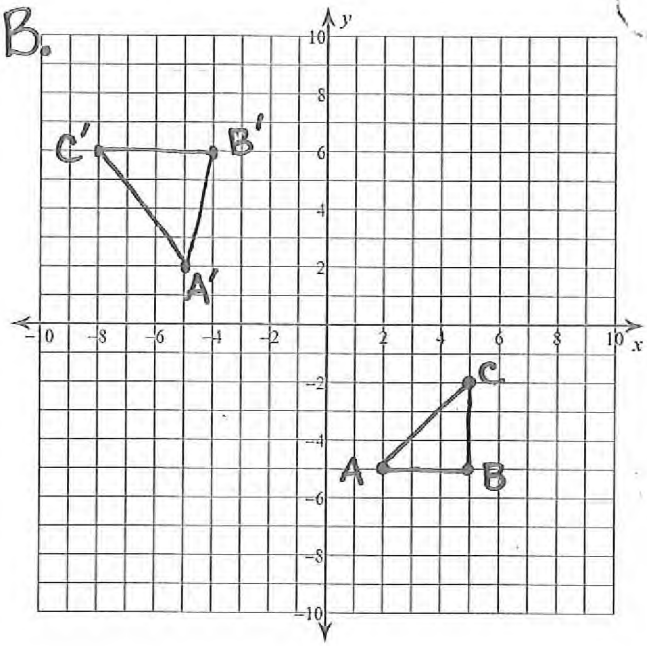
1. Define "congruence" in terms of rigid motions.

2. Determine if the two figures are congruent. Use a complete sentence to explain why they are or are not congruent, referencing the definition of congruence in terms of rigid motions.

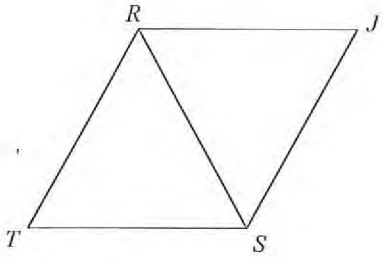
A.



B.

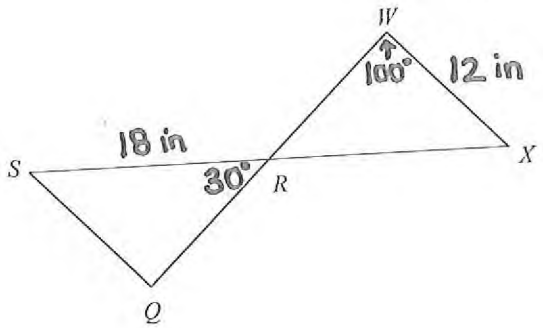


3. $\triangle RST \cong \triangle SRJ$



Identify the 6 pairs of congruent parts. (List them!)

④ $\triangle RQS \cong \triangle RWX$



Find the following:

A. length of $\overline{SQ}$ = _____

B. $m\angle XRW$ = _____

C. length of $\overline{RX}$ = _____

D. $m\angle SQR$ = _____

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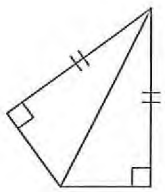
⑤ State if the two triangles are congruent. If they are, state how you know. (Hint: Triangle congruence Theorems)

A.



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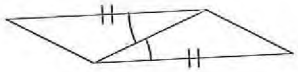
B.



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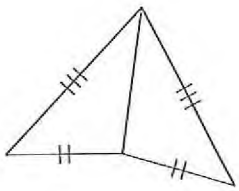
C.



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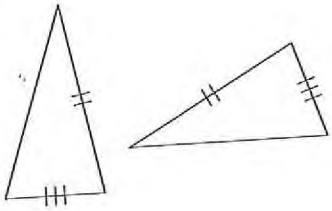
D.



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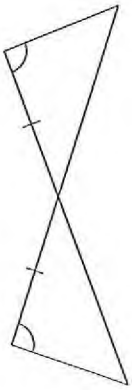
E.



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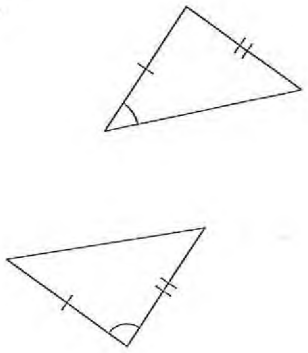
F.



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CONGRUENCE QUIZ

Key

Name

#18

25 pts

1. Define "congruence" in terms of rigid motions.

2pt Two figures are congruent if and only if ~~there is a sequence~~ one figure can be obtained from the other through a sequence of rigid motions.

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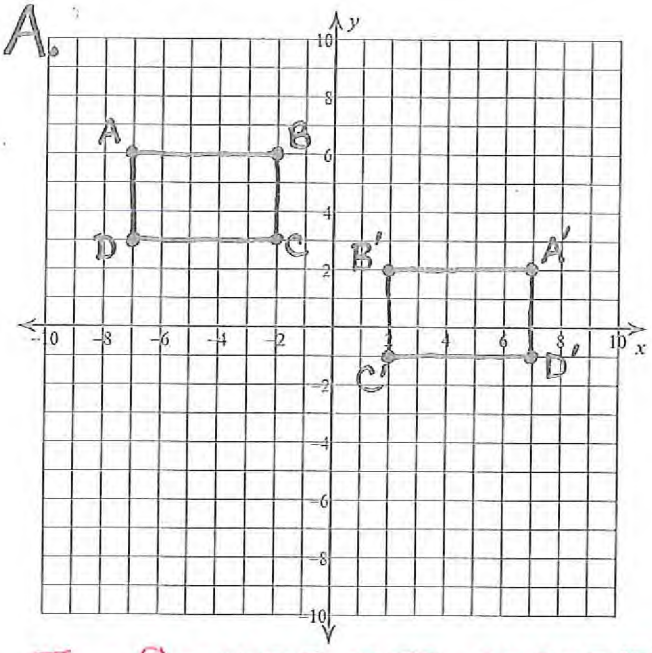
2. Determine if the two figures are congruent. Use a complete sentence to explain why they are or are not congruent, referencing the definition of congruence in terms of rigid motions.

4pt

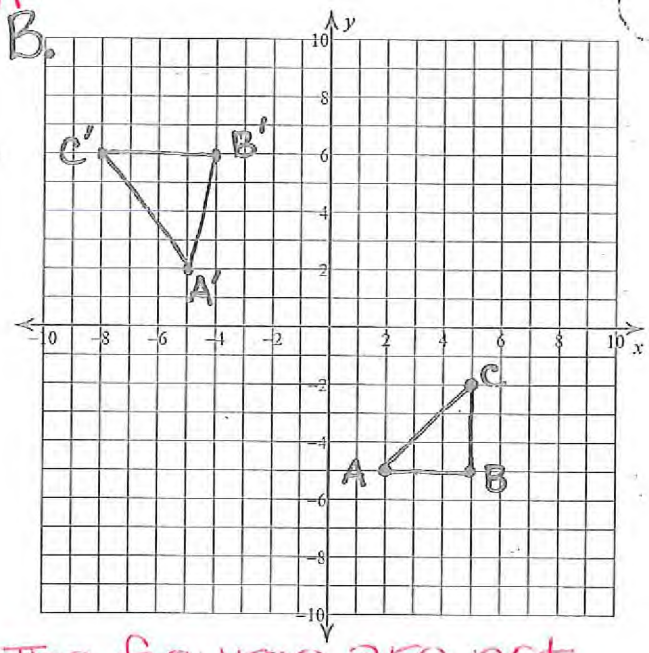
A.



The figures are congruent b/c ABCD was translated down + ~~right~~ reflected across y-axis to create A'B'C'D'.

3pt

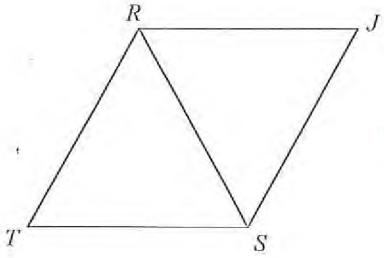
B.



The figures are not congruent b/c there is no sequence of rigid motions that will create A'B'C' from ABC.

6pt

3. $\triangle RST \cong \triangle SRJ$



Identify the 6 pairs of congruent parts. (list them!)

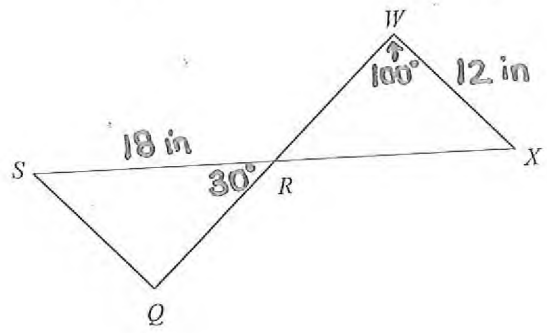
$\angle RST \cong \angle SRJ$ $\quad \overline{RS} \cong \overline{SR}$

$\angle STR \cong \angle RJS$ $\quad \overline{RT} \cong \overline{SJ}$

$\angle TRS \cong \angle JSR$ $\quad \overline{ST} \cong \overline{RJ}$

4pt

④ $\triangle RQS \cong \triangle RWX$



Find the following:

A. length of $\overline{SQ}$ = 12 in

B. $m\angle XRW$ = 30°

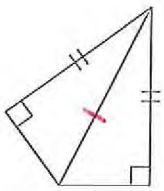
C. length of $\overline{RX}$ = 18 in

D. $m\angle SQR$ = 100°

6pt

⑤ State if the two triangles are congruent. If they are, state how you know. (Hint: Triangle congruence Theorems)

A.

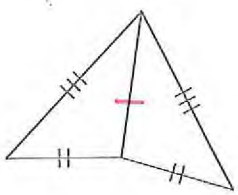


HL

B.

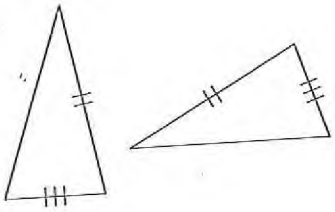
SAS

C.



SSS

D.

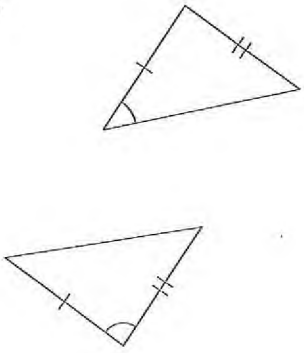


no

E.

ASA

F.



no