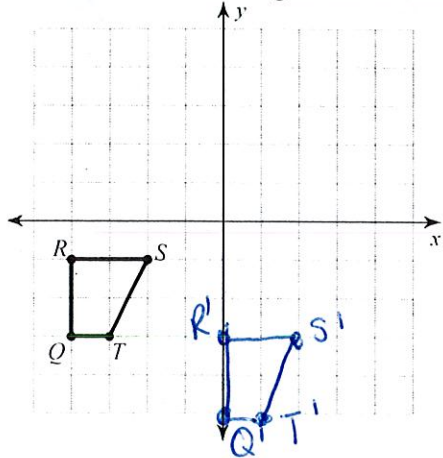


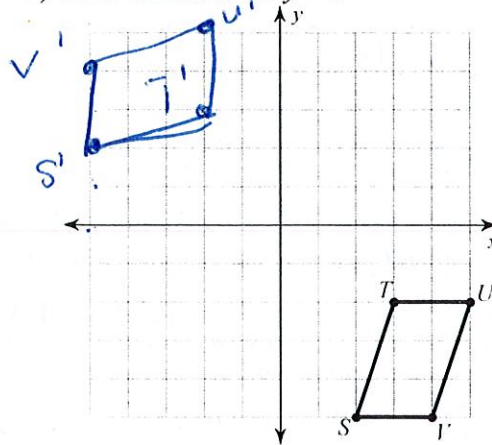
Unit 2 Quiz Review

Find the coordinates of the vertices of each figure after the given transformation.

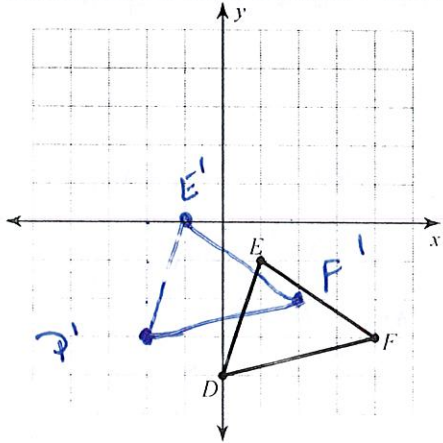
1) translation: 4 units right and 2 units down



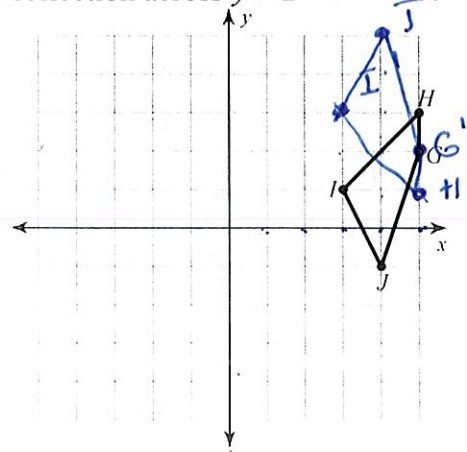
2) reflection across $y = x$



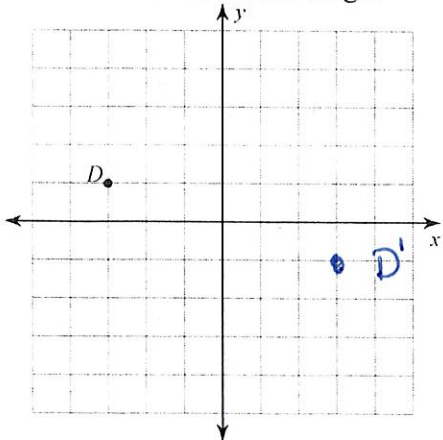
3) translation: 2 units left and 1 unit up



4) reflection across $y = 2$



5) rotation 180° about the origin



6) rotation 90° clockwise about the origin
 $Q(-3, -1), R(-4, 4), S(-1, 0)$

$Q'(-1, 3)$
 $R'(4, 4)$
 $S'(0, 1)$

7) reflection across the x-axis
 $S(-1, 1), R(2, 5), Q(3, 2)$

$R'(2, -5) Q'(3, -2) S'(-1, -1)$

9) reflection across $y = -2$
 $C(1, 1)$

$C'(1, -5)$

8) translation: 6 units left and 1 unit down
 $H(1, -4), I(3, 1), J(5, -4)$

$H'(-5, -5) I'(-3, 0) J'(-1, -5)$

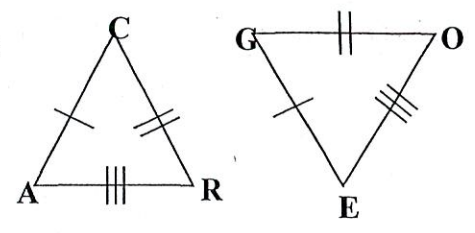
10) translation: 4 units right and 1 unit down
 $T(-1, -3), U(-3, 1), V(-2, 1), W(0, -2)$

$T'(3, -4) U'(1, 0) V'(2, 0) W'(4, -3)$

You will need a separate piece of paper to show all your work. This review is **not** comprehensive; always be sure to go back through your old homework and quizzes.

- ⊙ I can write a congruency statement representing two congruent polygons
 1. Write a congruency statement for the two triangles at right.

$$\triangle CRA \cong \triangle GOE$$



- ⊙ I can identify congruent parts of a polygon, given a congruency statement
 2. List ALL of the congruent parts if $\triangle EFG \cong \triangle HGF$

$$\begin{aligned} \angle E &\cong \angle H & EF &\cong HG \\ \angle F &\cong \angle G & FG &= GF \\ \angle G &= \angle F & GE &\cong FH \end{aligned}$$

- ⊙ I can name the five ways to prove triangles are congruent
 3. Name the 5 ways to prove triangles congruent.

SSS, SAS, ASA, AAS, HL

- ⊙ I can prove triangles are congruent

For each pair of triangles, tell: (a) Are they congruent (b) Write the triangle congruency statement. (c) Give the postulate that makes them congruent.

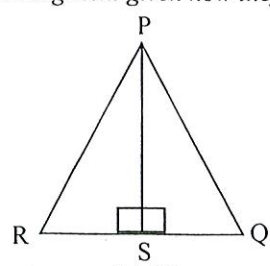
4. a) yes
b) $\triangle ABD \cong \triangle CBD$
c) SAS

6. Given: I is the midpoint of ME and SL
 a) yes
b) $\triangle MIS \cong \triangle EIL$
c) SAS

5. a) NO
there is NOSSA

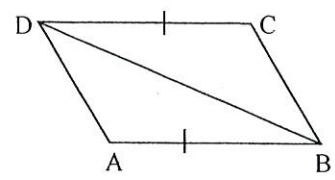
- ⊙ I can mark pieces of a triangle congruent given how they are to be proved congruent

7. What information is missing to use HL?



missing $PR \cong PQ$

8. What information is missing to use SAS?



missing $\angle CDB \cong \angle ABD$

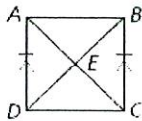
For each problem below, write a two-column proof on a separate piece of paper.

I. Proving Triangles Congruent:

1. Use AAS to prove the triangles congruent.

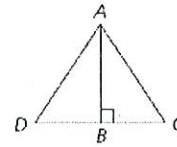
Given: $\overline{AD} \parallel \overline{BC}$, $\overline{AD} \cong \overline{CB}$

Prove: $\triangle AED \cong \triangle CEB$



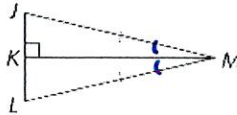
5. Given: B is the midpoint of \overline{DC} , $\overline{AB} \perp \overline{DC}$

Prove: $\triangle ABD \cong \triangle ABC$



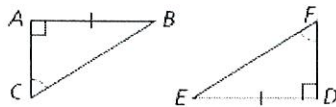
2. Given: $\overline{KM} \perp \overline{JL}$, $\overline{JM} \cong \overline{LM}$, $\angle JMK \cong \angle LMK$

Prove: $\triangle JKM \cong \triangle LKM$



3. Given: $\overline{AB} \cong \overline{DE}$, $\angle C \cong \angle F$

Prove: $\triangle ABC \cong \triangle DEF$

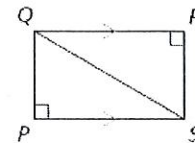


6. Use AAS to prove the triangles congruent.

Given: $\angle R$ and $\angle P$ are right angles.

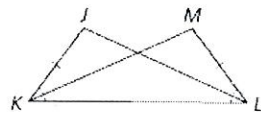
$\overline{QR} \parallel \overline{SP}$

Prove: $\triangle QPS \cong \triangle SRQ$



4. Given: $\overline{JK} \cong \overline{ML}$, $\angle JKL \cong \angle MLK$

Prove: $\triangle JKL \cong \triangle MLK$

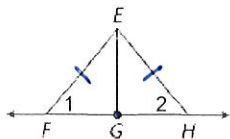


II. Using CPCTC

7. Given: G is the midpoint of \overline{FH} .

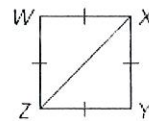
$\overline{EG} \cong \overline{EH}$

Prove: $\angle 1 \cong \angle 2$



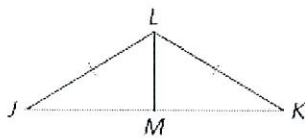
10. Given: $\overline{WX} \cong \overline{XY} \cong \overline{YZ} \cong \overline{ZW}$

Prove: $\angle W \cong \angle Y$



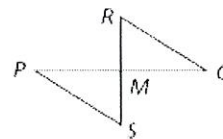
8. Given: \overline{LM} bisects $\angle JLK$, $\overline{JL} \cong \overline{KL}$

Prove: M is the midpoint of \overline{JK} .



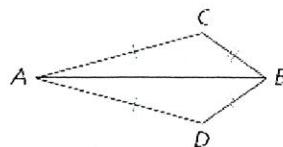
11. Given: M is the midpoint of \overline{PQ} and \overline{RS} .

Prove: $\overline{QR} \cong \overline{PS}$

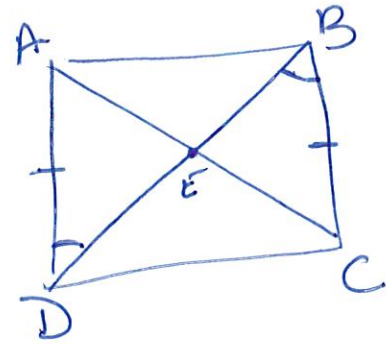


9. Given: $\overline{AC} \cong \overline{AD}$, $\overline{CB} \cong \overline{DB}$

Prove: \overline{AB} bisects $\angle CAD$.



①	Statement	Reasons
	1. $\overline{AD} \parallel \overline{BC}$	1. Given
	2. $\overline{AD} \cong \overline{CB}$	2. Given
	3. $\angle ADE \cong \angle ECB$	3. Alt. interior \angle s are \cong
	4. $\angle AED \cong \angle BEC$	4. Vertical \angle s are \cong
	5. $\triangle AED \cong \triangle CEB$	5. AAS



②	Statement	Reason
	1. $\overline{KM} \perp \overline{JL}$	1. Given
	2. $\overline{JM} \cong \overline{LM}$	2. Given
	3. $\angle JMK \cong \angle LMK$	3. Given
	4. $\overline{KM} \cong \overline{KM}$	4. Reflexive Property
	5. $\triangle JKM \cong \triangle LKM$	5. SAS

③	Statement	Reason
	1. $\overline{AB} \cong \overline{DE}$	1. Given
	2. $\angle C \cong \angle F$	2. Given
	3. $\angle CAB$ & $\angle EDF$ are Rt \angle s	3. Given
	4. $\angle CAB \cong \angle EDF$	4. Right \angle s are \cong
	5. $\triangle ABC \cong \triangle DEF$	5. AAS.

4.

Statement	Reason
1. $\overline{JK} \cong \overline{ML}$	1. Given
2. $\angle JKL \cong \angle MLK$	2. Given
3. $\overline{KL} \cong \overline{KL}$	3. Reflexive Property
4. $\triangle JKL \cong \triangle MLK$	4. SAS

⑤

Statement	Reason
1. B is midpoint of \overline{DC}	1. Given
2. $\overline{AB} \perp \overline{DC}$	2. Given
3. $\overline{DB} \cong \overline{BC}$	3. Def of mid point
4. $\angle ABD$ and $\angle ABC$ are right \angle s	4. Def of perpendicular
5. $\angle ABD \cong \angle ABC$	5. All right \angle s are \cong
6. $\overline{AB} \cong \overline{AB}$	6. Reflexive property
7. $\triangle ABD \cong \triangle ABC$	7. SAS

6.

Statement	Reason
1. $\angle R$ & $\angle P$ are right \angle s	1. Given
2. $\overline{QR} \parallel \overline{SP}$	2. Given
3. $\angle R \cong \angle P$	3. Rt \angle s are \cong
4. $\angle RQS \cong \angle QSP$	4. Alt. interior \angle s are \cong
5. $\overline{QS} \cong \overline{QS}$	5. Reflexive property
6. $\triangle QPS \cong \triangle SRQ$	6. AAS

7.

Statement	Reason
1. G is the midpt. of \overline{FH}	1. Given
2. $\overline{EF} \cong \overline{EH}$	2. Given
3. $\overline{FG} \cong \overline{GH}$	3. Def of midpoint
4. $\overline{GE} \cong \overline{GE}$	4. Reflexive property
5. $\triangle EGF \cong \triangle EGH$	5. SSS
6. $\angle 1 \cong \angle 2$	6. Corresponding parts of $\cong \triangle$ s are \cong

8

Statement

Reason

1. \overline{LM} bisect $\angle JLK$

1. Given

2. $\overline{JL} \cong \overline{KL}$

2. Given

3. $\angle JLM \cong \angle KLM$

3. Def. of bisect

4. $\overline{LM} \cong \overline{LM}$

4. Reflexive property

5. $\triangle JLM \cong \triangle KLM$

5. SAS.

6. $\overline{JM} \cong \overline{KM}$ 6. Corresponding parts of $\cong \triangle$ s are \cong 7. M is midpoint
of JK

7. Def. of midpoint.

9.

Statement

Reason

1. $\overline{AC} \cong \overline{AD}$

1. Given

2. $\overline{CB} \cong \overline{DB}$

2. Given

3. $\overline{AB} \cong \overline{AB}$

3. Reflexive property

4. $\triangle ACB \cong \triangle ADB$

4. SSS

5. $\angle CAB \cong \angle DAB$ 5. Corresponding parts of $\cong \triangle$ s are \cong 6. \overline{AB} bisects
 $\angle CAD$

6. Def. of bisect.

10.

Statement	Reason
1. $\overline{WX} \cong \overline{XY} \cong \overline{YZ} \cong \overline{ZW}$	1. Given
2. $\overline{ZX} \cong \overline{ZX}$	2. Reflexive property
3. $\triangle WXZ \cong \triangle XYZ$	3. SSS
4. $\angle W \cong \angle Y$	4. Corresponding parts of $\cong \triangle$ s are \cong

11.

Statement	Reasons
1. M is the midpt of \overline{PQ} and \overline{RS}	1. Given
2. $\overline{PM} \cong \overline{MQ}$	2. Def of midpoint
3. $\overline{RM} \cong \overline{SM}$	3. Def of midpoint
4. $\angle PMS \cong \angle QMR$	4. Vertical \angle s are \cong
5. $\triangle PMS \cong \triangle QMR$	5. SAS
6. $\overline{OR} \cong \overline{PS}$	6. Corresponding parts of $\cong \triangle$ s are \cong