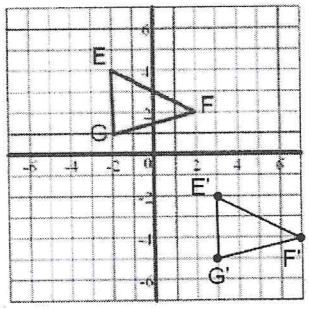
# Geometry Final Exam Review Answers Fall 2013

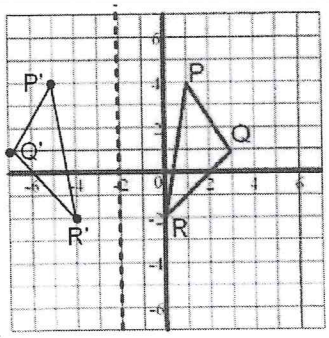
**Chapter 1 and 2** 1. $\overline{WC}$ 2. $A$ 3. $A$ 4. $WCRX$ 5. $\overline{WX}, \overline{EA}, \overline{GN}$

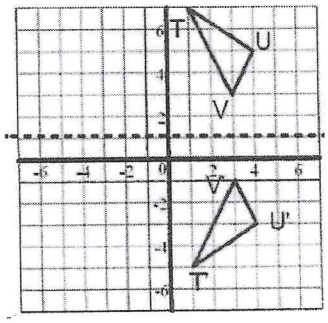
6. There are many answers, a few are given: $\overline{CR}, \overline{RX}, \overline{AN}, \overline{GN}$
7. $\overline{WC}$ & $\overline{CR}$ or $\overline{WC}$ & $\overline{CG}$ or $\overline{CG}$ & $\overline{CR}$ 8. Planes $GCRN$ & $GCWE$
9. Several answers are possible, a few are given: $\overleftrightarrow{HT}, \overleftrightarrow{WH}$, line m
10. A or W 11. C 12. $\overrightarrow{HC}$ or $\overrightarrow{HQ}$ 13. $\overline{CE}$ 14. $\overline{CR}$
14. $\overrightarrow{XC}$ or $\overrightarrow{XA}$ or $\overrightarrow{XN}$ 15. $\overline{NC}$ or $\overline{CN}$
16. There is more than one answer, an example is given: $\angle 2$ & $\angle GAW$
17. $\angle RAG$ or $\angle KAW$ 18. $\angle MAG$ or $\angle GAM$ 19. $\angle GAW$
20. There is more than one answer, an example is given: $\angle KAR$ 21. $\angle MAR$ 22. $\angle CAM$
23. a) Yes b) If a figure has four right angles, then it is a square
    c) No, the figure could be just a rectangle
24. If it's a plane, then it has wings.
25. a) If an angle has a measure of $90°$, then it is a right angle.
    b) An angle is a right angle if and only if it's measure is $90°$
26. a) • If the polygon is a hexagon, then it has six sides
    • If the polygon has six sides, then it's a hexagon
    b) Yes, because both conditionals are true.
27. 2. Segment Addition Postulate
    3. Substitution
    4. Combine Like Terms (Simplify)
    5. Subtraction Property of Equality
    6. Simplify
    7. Division Property of Equality
    8. Simplify

**Chapter 9** 1. 2. $(x,y) \rightarrow (x-8, y+3)$



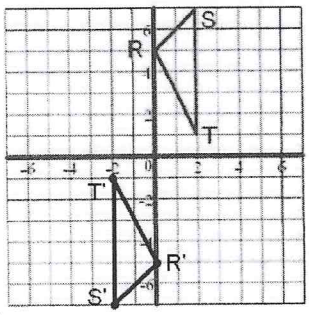

3. 7 units right and 5 units down: $(x,y) \rightarrow (x+7, y-5)$
4. a) $Q'(2,-6)$ b) $Q'(-2,6)$ c) $Q'(4,6)$ d) $Q'(2,-8)$
5. 6. $y = 1$



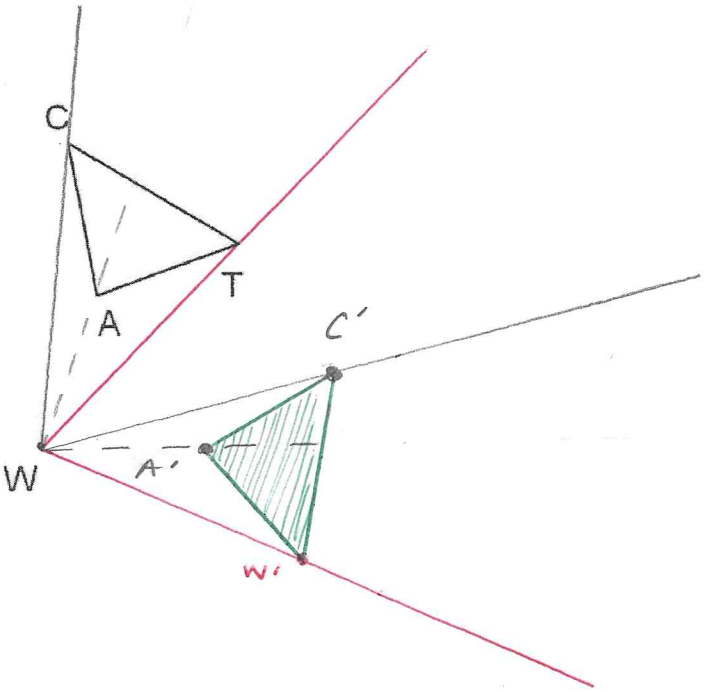



7. 105° CCW

8. 90° CW

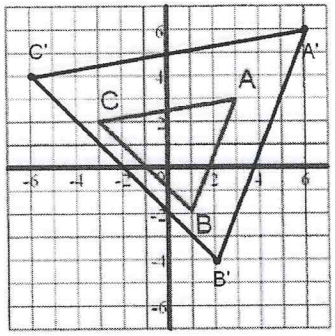



9.

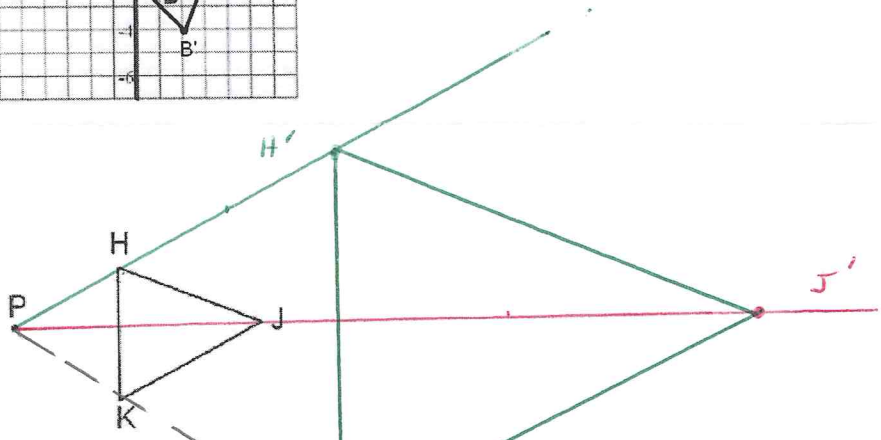



10.

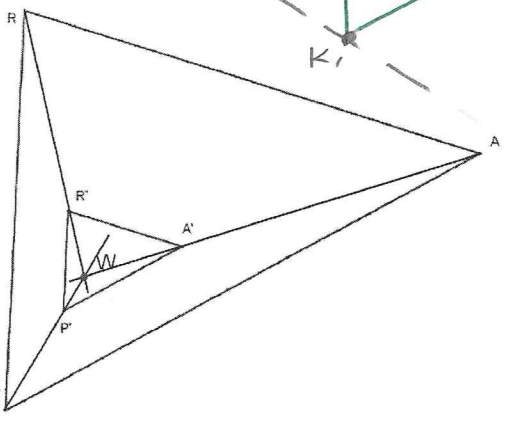
11. Scale Factor: 1:3
Center of Dilation: (−6, −7)




12.

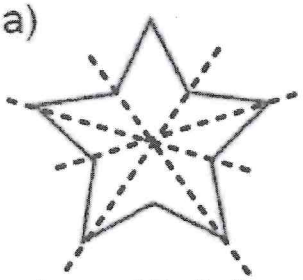



13.

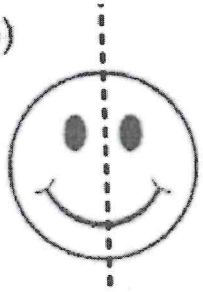



14.

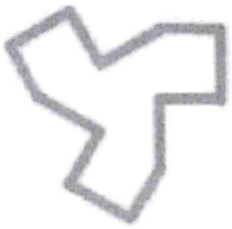
15.

a) 

Five lines of Refl. Symm.
72° Rotational Symm.

b) 

One line of Refl. Symm.
No Rot. Symm.

c) 

No Refl. Symm.
120° Rot. Symm.

Chapter 3 1. a) Vertical Angles, ≅ b) SSE, suppl c) No Name, ≅ d) Corresp, ≅
e) Alt Int, ≅ f) No Name, suppl g) SSI, suppl h) Alt Ext, ≅
2. a) $a \| b$ b) $g \| h$ c) Not enough information
3. Possible Proof is given

| Statement | Reason |
|---|---|
| 1. $a \| b$ and $g \| h$ | 1. Given |
| 2. $\angle 5$ & $\angle 15$ are suppl | 2. SSI |
| 3. $\angle 15 \cong \angle 12$ | 3. Alt Ext |
| 4. $\angle 2$ & $\angle 12$ are suppl | 4. Substitution |

4. Possible Proof is given

| Statement | Reason |
|---|---|
| 1. $a \| b$ and $g \| h$ | 1. Given |
| 2. $\angle 6 \cong \angle 9$ | 2. Alt Int |
| 3. $\angle 9 \cong \angle 11$ | 3. Corresp |
| 4. $\angle 6 \cong \angle 11$ | 4. Substitution |

5. a) No (SSI angles aren't suppl) b) Yes, if you use vertical angles you'll find that SSI angles are supplementary
c) Yes, Alt Ext angles are congruent.
6. $x = 65$ 7. $x = 115$ 8. $x = 39$
9. 19 sides 10. 1 exterior angle $= 36°$ 1 interior angle $= 144°$
11. 12 sides 12. a) Acute Isosceles b) Obtuse Scalene c) Equiangular Equilateral.

Chapter 4 Use the review from the Chapter 4 test to study for the final exam.