Mr. Malloch
Chapter 4 Review

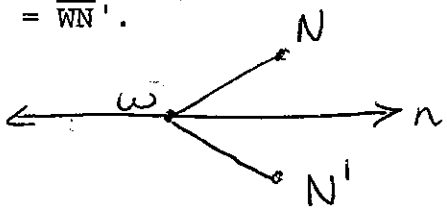
UCSMP Geometry

Name Key
Class
Date: November 8, 2006

You will need a ruler and Mira for this test

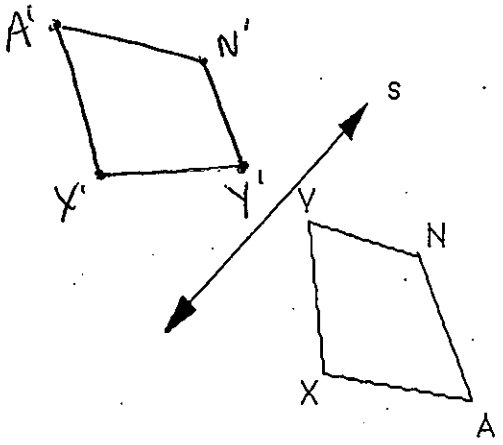
1. In the space at the right, draw and label a figure so that $r_m(\overline{WN}) = \overline{WN}'$.

1)



2. In the figure at the right, draw the reflection image of VNAX over line s.

2)



3. Use the figure below. Suppose $r_s(JKLM) = AXVN$. Justify the conclusion.

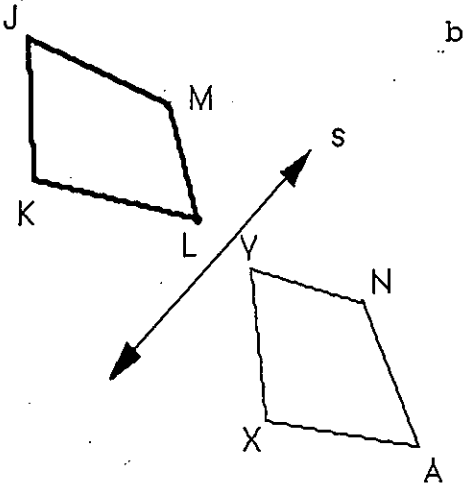
a. $s \perp \overline{KX}$

b. $m\angle KJM = m\angle XAN$

3)

a) Def. of reflection

b) Angle Measure preserved



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4. Give the image of (p,q) when translated by the vector (-9,8).

4) $(p-9, q+8)$

5. △RNT has vertices R = (1,6), N = (4,-2), and T = (-10,5). Give the vertices of the reflection image of △RNT over the x-axis.

5) $R' = (1,-6)$
$N' = (4,2)$
$T' = (-10,-5)$

6. Name the four types of isometries.

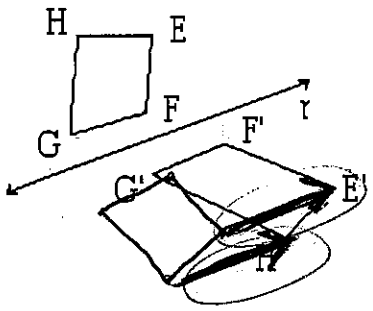
6)
a) reflection
b) translation
c) rotation
d) glide

7. **True or false** All congruence transformations preserve betweenness.

7) true

8. In the figure at the right, E'F'G'H' is the image of EFGH under a glide refection r◇T. Draw the translation vector for T.

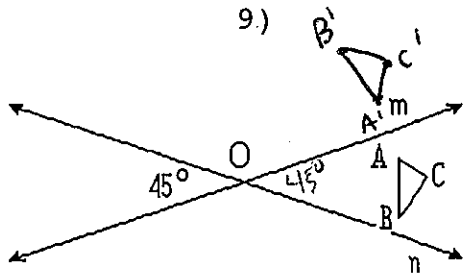
8)



Chapter 4 Review

9. a. Use the figure at the right. Draw $r_n \circ r_m(\triangle ABC)$.

b. Name the transformation performed in Part **a** and describe its direction and magnitude.



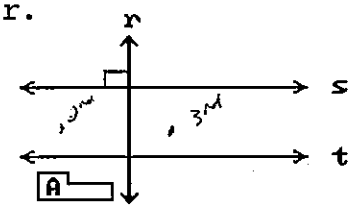
b. rotation; clockwise; $r = -90°$

10. To translate $\overline{MN}$ by 3.6 cm, you can reflect it successively across two ___?___ lines where the distance between them is ___?___.

10) a) parallel

b) 1.8 cm

11. In the figure below, s ∥ t and t ⊥ r. Name and describe the transformation performed if figure A is reflected first over t and then that image is reflected over r.

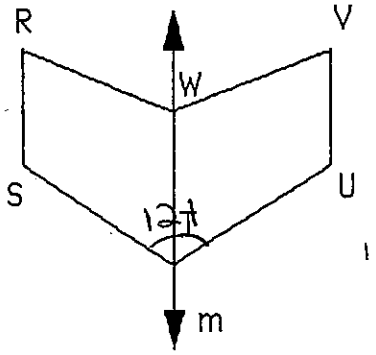


11) rotation

Clockwise = 180°

Counterclockwise = 180°

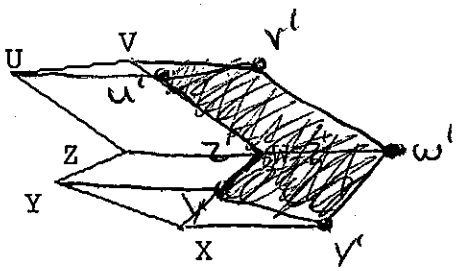
12. In the figure below, $r_m(S) = U$. If m ∠STU = 121, find m ∠STW.



12) 60.5°

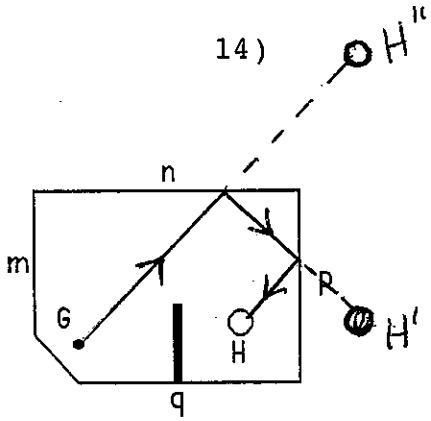
13. In the figure at the right, draw the translation image of UVWXYZ determined by $\overrightarrow{ZW}$.

13)



14. Draw the path golf ball G must follow to carom first off n and then p in order to go into hole H.

14)



15. Name the type of isometry that maps Figure I onto Figure II.

15) glide


Figure I


Figure II

16. Name the type of isometry that maps Figure I onto Figure II.

16) rotation

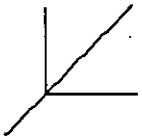


Figure I

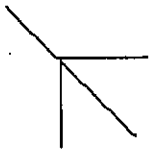


Figure II