Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Math 8

**RIGID MOTIONS AND ANGLES**

1. Determine the measure of each angle from the diagram and explain your reasoning.

 M N

 O

 120o

 P Q

 m < MOP = \_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 m < MON = \_\_\_\_\_\_

 m < NOQ = \_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Lines c and d are parallel to each other. Mark 4 angles that are congruent to each other with an arc.

 c

 d

1. Circle all the sets of angles that could make a triangle.

50, 50, 100 60, 40, 80 30, 60, 90 90, 90, 90

 110, 65, 5 120, 33, 27 99, 80, 1 45, 45, 45

Problems 4 – 7, determine the measure of the missing angle. Show work.

1. 5.

 75 20

 55 x

 x

1. 7.

 30

 20

 140 x

 115 x

8. Lines c and d are parallel to each other. Find all the labeled angles.

 300

 c 1 2

 d 3 4

 1150 5

m < 1 = \_\_\_\_\_\_ m < 2 = \_\_\_\_\_\_ m < 3 = \_\_\_\_\_\_

m < 4 = \_\_\_\_\_\_ m < 5 = \_\_\_\_\_\_

9. Lines EF and GH are parallel to each other. Find the following angles.

 E X Y F

 1150

 450

 G Z H

m < EXZ = \_\_\_\_\_\_

m < YXZ = \_\_\_\_\_\_

m < YZH = \_\_\_\_\_\_

m < ZYX = \_\_\_\_\_\_

m < XZY = \_\_\_\_\_\_