**Honors Math 2**

**Congruent Triangles Homework**

I. Name the congruent triangles.

1. $ ∆OGD≅∆\\_\\_\\_\\_\\_\\_\\_\\_\\_$ 2. $∆RAC≅$ $∆$\_\_\_\_\_\_\_\_\_\_\_

**C**

**O**

**G**

**R**

**A**

**E**

3. $∆LIN≅∆$\_\_\_\_\_\_\_ 4. $∆FOX≅∆$\_\_\_\_\_\_\_

A

I

B

O

X

F

O

X



E

L

 N P

Use the congruency statement to fill in the corresponding congruent parts.

5.$∆EFI≅∆HGI$   

   

6. $∆PQR≅∆MNR$. Find x. 7. $∆ABC≅∆ADC$ Find y.

R

Q

N

M

P

 x°

A

B

C

D

3y

21

35o

For each pair of triangles, tell which postulates, **if any**, make the triangles congruent.

8. ΔABC ≅ ΔEFD \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 9. ΔABC ≅ ΔCDA \_\_\_\_\_\_\_\_\_\_\_\_\_\_

C

A

D

B

C

A

B

D

F

E

10. ΔABC ≅ ΔEFD \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11. ΔADC ≅ ΔBDC \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

B

D

C

A

C

B

D

F

E

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

12. 13. 14. Given: T is the midpoint of WR

L

O

V

E

E

A

A

B

D

E

C

T

R

W

a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Δ\_\_\_\_\_ ≅ Δ \_\_\_\_\_ b. Δ\_\_\_\_\_ ≅ Δ \_\_\_\_\_ b. Δ\_\_\_\_\_ ≅ Δ \_\_\_\_\_

c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Using the given postulate, tell which parts of the pair of triangles should be shown congruent.

15. SAS 16. ASA 17. SSS

A

B

C

D

C

A

B

D

E

F

F

A

D

E

B

C

\_\_\_\_\_\_\_ ≅ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ ≅ \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ ≅ \_\_\_\_\_\_\_