I. Name the congruent triangles.

1. 2. 

**C**

**O**

**G**

**R**

**A**

**E**

3.  4. 

A

I

B

O

X

F

O

X

E

L

R

N

II. Name the congruent triangle and the congruent parts.

5. 

  

  

  

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

6.    

   

7. . Find x. 8.  Find y.

R

Q

N

M

P

 x°

A

B

C

D

(3y)°

21°

35o



9.

 **Triangle Congruence Worksheet #1**

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

10. ΔABC ≅ ΔEFD \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 11. ΔABC ≅ ΔCDA \_\_\_\_\_\_\_\_\_\_\_\_\_\_

C

A

D

B

C

A

B

D

F

E

12. ΔABC ≅ ΔEFD \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 13. ΔADC ≅ ΔBDC \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

B

D

C

A

C

B

D

F

E

14. ΔMAD ≅ ΔMBC \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 15. ΔABE ≅ ΔCDE \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

B

E

C

D

D

A

C

B

M



16. ΔACB ≅ ΔADB \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 17. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

C

D

B

**Triangle Congruence Worksheet #2**

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

18. ΔAEB ≅ ΔDEC \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 19. ΔCDE ≅ ΔABF \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

E

C

D

B

A

D

E

F

B

C

20. ΔDEA ≅ ΔBEC \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 21. ΔAGE ≅ ΔCDF \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

B

C

D

E



22. ΔRTS ≅ ΔCBA \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 23. ΔABC ≅ ΔADC \_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

B

D

C

T

S

R

B

C

A

24. ΔBAP ≅ ΔBCP \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 25. ΔSAT ≅ ΔSAR \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Given: BD bisects ABC

A

T

S

R

A

D

B

P

C

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

L

O

V

E

1. 2. 3. Given: T is the midpoint of WR

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. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. 5. Given: IH Bisects WIS 6.

L

U

G

E



S

H

W

I

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

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

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

7. 8.

A

T

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

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

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

9. Given: I is the midpoint 10. 11.

 of ME and SL

C

F



L

M

I

E

S

D

A

B

E

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.

1. SAS 2. ASA 3. SSS

A

B

C

D

C

A

B

D

E

F

F

A

D

E

B

C

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

4. AAS 5. HL 6. ASA

P

R

S

Q

D

C

B

A

P

S

T

R

Q

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

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

I. Proving Triangles Congruent:

**1. 5.**

**2.**

**3. 6.**

**4.**

II. Using CPCTC

**7. 10.**

1

2

**8. 11.**

**9.**