Name: _____ Date _____

Topic: Congruence of Triangle - Worksheet 1

1. **ΔASD ≈ ΔPQR and the perimeter of ΔPQR is 320 cm. If the sum of two sides of ΔPQR is 220 cm, what is the length of the third side of ΔPQR?**

2. **Δ ZAQ is congruent to Δ XSW. If the sum of the measures of <Z and <Q is 135 degrees, what is the degree measure of <S?**

3. **ΔJKL ≈ ΔLMN with JK≈LM and JK=14X-4. If LM = 60 cm, find the value of x?**

4. **ΔABC ≈ ΔXYZ and the perimeter of ΔXYZ is 75 cm. If the sum of two sides of ΔABC is 50 cm, what is the length of the third side of ΔXYZ?**

5. **Δ PQR is congruent to Δ ABC. If the sum of the measures of <P and <R is 106 degrees, what is the degree measure of <B?**

6. **ΔCDE ≈ ΔVFR with CD≈VF and CD=4X+4. If VF = 52 cm, find the value of x?**

7. **ΔXYZ ≈ ΔABC and the perimeter of ΔABC is 62 cm. If the sum of two sides of ΔXYZ is 48 cm, what is the length of the third side of ΔABC?**

8. **Δ FGH is congruent to Δ BNM. If the sum of the measures of <F and <H is 20 degrees, what is the degree measure of <N?**

9. **ΔRST ≈ ΔZXC with <R≈<Z and <T≈<C. If ZC = 46 cm, which side of ΔRST has the same measure?**

10. **ΔJKL ≈ ΔXYZ and the perimeter of ΔJKL is 440 cm. If the sum of two sides of ΔXYZ is 240 cm, what is the length of the third side of ΔJKL?**

Name: _____ Date _____

Topic: Congruence of Triangle - Worksheet 2

1. **ΔASD ≈ ΔPQR and the perimeter of ΔPQR is 220 cm. If the sum of two sides of ΔPQR is 150 cm, what is the length of the third side of ΔPQR?**

2. **Δ ZAQ is congruent to Δ XSW. If the sum of the measures of <Z and <Q is 175 degrees, what is the degree measure of <S?**

3. **ΔJKL ≈ ΔLMN with JK≈LM and JK=16X-6. If LM = 80 cm, find the value of x?**

4. **ΔABC ≈ ΔXYZ and the perimeter of ΔXYZ is 65 cm. If the sum of two sides of ΔABC is 40 cm, what is the length of the third side of ΔXYZ?**

5. **Δ PQR is congruent to Δ ABC. If the sum of the measures of <P and <R is 108 degrees, what is the degree measure of <B?**

6. **ΔCDE ≈ ΔVFR with CD≈VF and CD=2X+2. If VF = 72 cm, find the value of x?**

7. **ΔXYZ ≈ ΔABC and the perimeter of ΔABC is 82 cm. If the sum of two sides of ΔXYZ is 58 cm, what is the length of the third side of ΔABC?**

8. **Δ FGH is congruent to Δ BNM. If the sum of the measures of <F and <H is 40 degrees, what is the degree measure of <N?**

9. **ΔRST ≈ ΔZXC with <R≈<Z and <T≈<C. If ZC = 36 cm, which side of ΔRST has the same measure?**

10. **ΔJKL ≈ ΔXYZ and the perimeter of ΔJKL is 520 cm. If the sum of two sides of ΔXYZ is 360 cm, what is the length of the third side of ΔJKL?**

Name: _____ Date _____

Topic: Congruence of Triangle - Worksheet 3

1 **ΔASD ≈ ΔPQR and the perimeter of ΔPQR is 410 cm. If the sum of two sides of ΔPQR is 230 cm, what is the length of the third side of ΔPQR?**

2. **Δ ZAQ is congruent to Δ XSW. If the sum of the measures of <Z and <Q is 125 degrees, what is the degree measure of <S?**

3. **ΔJKL ≈ ΔLMN with JK≈LM and JK=18X-2. If LM = 52 cm, find the value of x?**

4. **ΔABC ≈ ΔXYZ and the perimeter of ΔXYZ is 55 cm. If the sum of two sides of ΔABC is 34 cm, what is the length of the third side of ΔXYZ?**

5. **Δ PQR is congruent to Δ ABC. If the sum of the measures of <P and <R is 100 degrees, what is the degree measure of <B?**

6. **ΔCDE ≈ ΔVFR with CD≈VF and CD=8X+5. If VF = 45 cm, find the value of x?**

7. **ΔXYZ ≈ ΔABC and the perimeter of ΔABC is 72 cm. If the sum of two sides of ΔXYZ is 38 cm, what is the length of the third side of ΔABC?**

8. **Δ FGH is congruent to Δ BNM. If the sum of the measures of <F and <H is 60 degrees, what is the degree measure of <N?**

9. **ΔLMN ≈ ΔZXC with <L≈<Z and <N≈<C. If ZC = 56 cm, which side of ΔLMN has the same measure?**

10. **ΔJKL ≈ ΔXYZ and the perimeter of ΔJKL is 610 cm. If the sum of two sides of ΔXYZ is 490 cm, what is the length of the third side of ΔJKL?**

Name: _____ Date _____

Topic: Congruence of Triangle - Worksheet 4

1. **ΔASD ≈ ΔPQR and the perimeter of ΔPQR is 620 cm. If the sum of two sides of ΔPQR is 512 cm, what is the length of the third side of ΔPQR?**

2. **Δ ZAQ is congruent to Δ XSW. If the sum of the measures of <Z and <Q is 155 degrees, what is the degree measure of <S?**

3. **ΔJKL ≈ ΔLMN with JK≈LM and JK=10X-5. If LM = 55 cm, find the value of x?**

4. **ΔABC ≈ ΔXYZ and the perimeter of ΔXYZ is 84 cm. If the sum of two sides of ΔABC is 34 cm, what is the length of the third side of ΔXYZ?**

5. **Δ PQR is congruent to Δ ABC. If the sum of the measures of <P and <R is 110 degrees, what is the degree measure of <B?**

6. **ΔCDE ≈ ΔVFR with CD≈VF and CD=7X+3. If VF = 45 cm, find the value of x?**

7. **ΔXYZ ≈ ΔABC and the perimeter of ΔABC is 80 cm. If the sum of two sides of ΔXYZ is 62 cm, what is the length of the third side of ΔABC?**

8. **Δ FGH is congruent to Δ BNM. If the sum of the measures of <F and <H is 90 degrees, what is the degree measure of <N?**

9. **ΔRST ≈ ΔZXC with <R≈<Z and <T≈<C. If ZC = 72 cm, which side of ΔRST has the same measure?**

10. **ΔJKL ≈ ΔXYZ and the perimeter of ΔJKL is 720 cm. If the sum of two sides of ΔXYZ is 560 cm, what is the length of the third side of ΔJKL?**

Name: _____ Date _____

Topic: Congruence of Triangle - Worksheet 5

1. **ΔASD ≈ ΔPQR and the perimeter of ΔPQR is 840 cm. If the sum of two sides of ΔPQR is 490 cm, what is the length of the third side of ΔPQR?**

2. **Δ ZAQ is congruent to Δ XSW. If the sum of the measures of <Z and <Q is 145 degrees, what is the degree measure of <S?**

3. **ΔJKL ≈ ΔLMN with JK≈LM and JK=15X-6. If LM = 69 cm, find the value of x?**

4. **ΔABC ≈ ΔXYZ and the perimeter of ΔXYZ is 94 cm. If the sum of two sides of ΔABC is 70 cm, what is the length of the third side of ΔXYZ?**

5. **Δ PQR is congruent to Δ ABC. If the sum of the measures of <P and <R is 145 degrees, what is the degree measure of <B?**

6. **ΔCDE ≈ ΔVFR with CD≈VF and CD=9X+4. If VF = 58 cm, find the value of x?**

7. **ΔXYZ ≈ ΔABC and the perimeter of ΔABC is 71 cm. If the sum of two sides of ΔXYZ is 34 cm, what is the length of the third side of ΔABC?**

8. **Δ FGH is congruent to Δ BNM. If the sum of the measures of <F and <H is 135 degrees, what is the degree measure of <N?**

9. **ΔRST ≈ ΔZXC with <R≈<Z and <T≈<C. If ZC = 60 cm, which side of ΔRST has the same measure?**

10. **ΔJKL ≈ ΔXYZ and the perimeter of ΔJKL is 800 cm. If the sum of two sides of ΔXYZ is 605 cm, what is the length of the third side of ΔJKL?**