

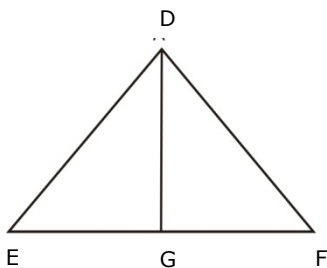
Name: \_\_\_\_\_

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Topic : Geometric Constructions- Congruence - Worksheet 1

- Triangle DEF is congruent to triangle D'E'F' .If EF is represented by  $4x-40$  and E'F' is represented by  $3x-15$ ,find the value of x.
1. **1.** represented by  $4x-40$  and E'F' is represented by  $3x-15$ ,find the value of x.
- Triangle PQR is congruent to triangle GHI with  $PQ \approx GH$ . If  $PQ = 4x-35$ , and  $GH = 2x+3$ ,find the value of x.
3. **3.** If  $PQ = 4x-35$ , and  $GH = 2x+3$ ,find the value of x.
- Triangle UVW is congruent to triangle U'V'W' .If VW is represented by  $5x-55$  and V'W' is represented by  $x+5$ ,find the value of x.
5. **5.** represented by  $5x-55$  and V'W' is represented by  $x+5$ ,find the value of x.
- Polygon STUV is congruent to polygon S'T'U'V' .If the value of angle S' is  $2x+40$  and the value of angle S is  $4x+20$ ,find angle S.
2. **2.** value of angle S' is  $2x+40$  and the value of angle S is  $4x+20$ ,find angle S.
- Triangle JKL is congruent to triangle J'K'L'. If angle L is represented by  $5x+3$  and angle L' is represented by  $4x+6$ ,find the measure of angle L.
4. **4.** L is represented by  $5x+3$  and angle L' is represented by  $4x+6$ ,find the measure of angle L.
- Polygon ABCD is congruent to polygon A'B'C'D' .If the value of angle A' is  $4x+35$  and the value of angle A is  $3x+50$ ,find angle A.
6. **6.** value of angle A' is  $4x+35$  and the value of angle A is  $3x+50$ ,find angle A.

Identify True or False dealing with Geometric Congruent



7. **7.** If  $EG=GF$  and  $DE=DF$  then  $\angle EDG$  will be Congruent to  $\angle FDG$ .
8. **8.** If  $DE=DF$  and  $EG=GF$ ,  $DE$  will be not equal to  $DG$ .



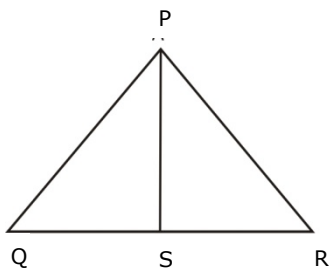
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Topic : Geometric Constructions- Congruence - Worksheet 2

- Triangle GHI is congruent to triangle G'H'I' .If HI is represented by  $3x-35$  and H'I' is represented by  $2x-20$ ,find the value of x.
1. **1.** represented by  $3x-35$  and H'I' is represented by  $2x-20$ ,find the value of x.
- Triangle JKL is congruent to triangle ABC with  $JK \approx AB$ .
3. **3.** If  $JK = 4x-34$ , and  $AB = 3x+6$ ,find the value of x.
- Triangle DEF is congruent to triangle D'E'F' .If EF is represented by  $5x-55$ and E'F' is represented by  $2x+5$ ,find the value of x.
5. **5.** represented by  $5x-55$ and E'F' is represented by  $2x+5$ ,find the value of x.
- Polygon PQRS is congruent to polygon P'Q'R'S' .If the value of angle P' is  $2x+35$  and the value of angle P is  $3x+30$ ,find angle P.
2. **2.** value of angle P' is  $2x+35$  and the value of angle P is  $3x+30$ ,find angle P.
- Triangle MNO is congruent to triangle M'N'O' . If angle O is represented by  $4x+6$  and angle O' is represented by  $3x+9$ ,find the measure of angle O.
4. **4.** angle O is represented by  $4x+6$  and angle O' is represented by  $3x+9$ ,find the measure of angle O.
- Polygon WXYZ is congruent to polygon W'X'Y'Z' .If the value of angle W' is  $3x+30$  and the value of angle W is  $2x+60$ ,find angle W.
6. **6.** value of angle W' is  $3x+30$  and the value of angle W is  $2x+60$ ,find angle W.

Identify True or False dealing with Geometric Congruent



7. **7.** If  $QS=SR$  and  $PQ=PR$  then  $\angle QPS$  will be congruent to  $\angle RPS$ .
8. **8.** If  $PQ=PR$  and  $QS=SR$ ,  $PQ$  will be equal to  $PS$ .



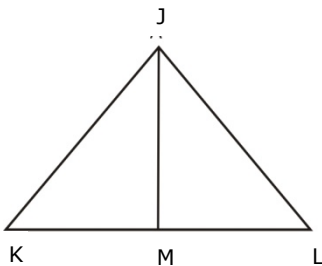
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Topic : Geometric Constructions- Congruence - Worksheet 3

- Triangle JKL is congruent to triangle J'K'L' .If KL is
1. represented by  $4x-35$  and K'L' is represented by  $2x-25$ ,find the value of  $x$ .
  2. Polygon ABCD is congruent to polygon A'B'C'D' .If the value of angle A' is  $4x+40$  and the value of angle A is  $5x+35$ ,find angle A.
  3. Triangle ABC is congruent to triangle LMN with  $AB \approx LM$ . If  $AB = 3x-38$ , and  $LM = 2x+5$ ,find the value of  $x$ .
  4. Triangle PQR is congruent to triangle P'Q'R' . If angle R is represented by  $5x+4$  and angle R' is represented by  $3x+8$ ,find the measure of angle R.
  5. Triangle LMN is congruent to triangle L'M'N' .If MN is represented by  $4x-50$  and M'N' is represented by  $x+4$ ,find the value of  $x$ .
  6. Polygon JKLM is congruent to polygon J'K'L'M' .If the value of angle J' is  $4x+25$  and the value of angle J is  $2x+45$ ,find angle J.

Identify True or False dealing with Geometric Congruent



7. If  $KM=ML$  and  $JK=JL$  then  $\angle KJM$  will not be congruent to  $\angle LJM$  .
8. If  $JK=JL$  and  $KM =ML$ ,  $JK$  will not be equal to  $JM$ .



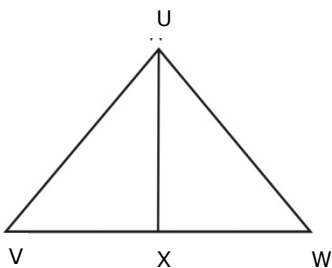
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Topic : Geometric Constructions- Congruence - Worksheet 4

1. Triangle PQR is congruent to triangle P'Q'R' .If QR is represented by  $2x-36$  and Q'R' is represented by  $x-24$ ,find the value of x.
2. Polygon UVWX is congruent to polygon U'V'W'X' .If the value of angle U' is  $3x+35$  and the value of angle U is  $4x+30$ ,find angle U.
3. Triangle PQR is congruent to triangle JKL with  $PQ \approx JK$ . If  $PQ = 2x-42$ , and  $JK = x+6$ ,find the value of x.
4. Triangle RST is congruent to triangle R'S'T'. If angle R is represented by  $4x+6$  and angle R' is represented by  $3x+10$ ,find the measure of angle R.
5. Triangle XYZ is congruent to triangle X'Y'Z' .If YZ is represented by  $3x-56$  and Y'Z' is represented by  $x+10$ ,find the value of x.
6. Polygon MNOP is congruent to polygon M'N'O'P' .If the value of angle M' is  $5x+20$  and the value of angle M is  $3x+40$ ,find angle M.

Identify True or False dealing with Geometric Congruent



7. If  $VX=XW$  and  $UV=UW$  then  $\angle VUX$  will not be congruent to  $\angle WUX$ .
8. If  $UV=UW$  and  $VX =XM$ ,  $UV$  will be equal to  $UX$ .



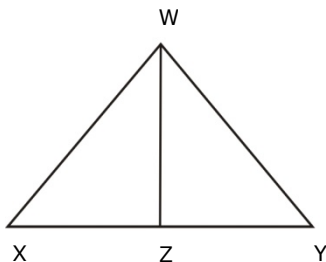
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Topic : Geometric Constructions- Congruence - Worksheet 5

- Triangle UVW is congruent to triangle U'V'W' .If VW is represented by  $3x-34$  and V'W' is represented by  $2x-28$ ,find the value of x.
1. **2.** Polygon PQRS is congruent to polygon P'Q'R'S' .If the value of angle P' is  $4x+25$  and the value of angle P is  $3x+40$ ,find angle P.
- Triangle STU is congruent to triangle DEF with  $ST \approx DE$ . If  $ST = 4x-46$ , and  $DE = 3x+8$ ,find the value of x.
3. **4.** Triangle DEF is congruent to triangle D'E'F'. If angle D is represented by  $3x+8$  and angle D' is represented by  $x+12$ ,find the measure of angle D.
- Triangle KLM is congruent to triangle K'L'M' .If LM is represented by  $4x-58$  and L'M' is represented by  $2x+12$ ,find the value of x.
5. **6.** Polygon QRST is congruent to polygon Q'R'S'T' .If the value of angle Q' is  $4x+22$  and the value of angle Q is  $3x+38$ ,find angle Q.

Identify True or False dealing with Geometric Congruent



7. If  $XZ=ZY$  and  $WX=WY$  then  $\angle XWZ$  will not be congruent to  $\angle YWZ$ .
8. If  $WX=WY$  and  $XZ=ZY$ ,  $WX$  will not be equal to  $WZ$ .

