Unit 3 Quiz Study Guide

1) A right triangle has an angle that measures 52.8°. What is the measure of the other acute angle?

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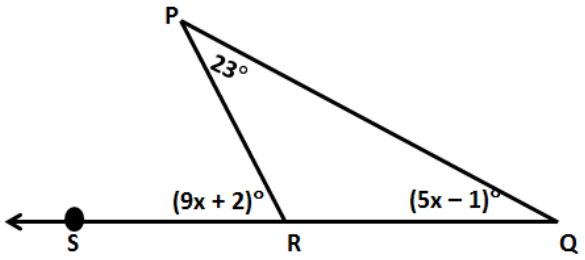
2) What is m∠SRP in the given figure?



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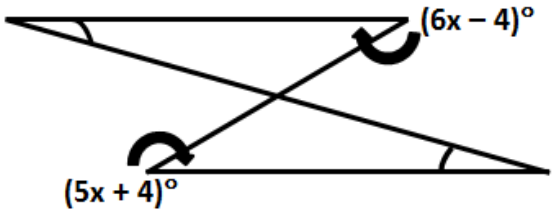
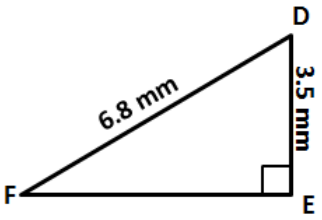
3) What is the value of x in the given figure?



You are given that ΔABC ≅ ΔDEF.



4) What is AB?

5) What is m∠D?

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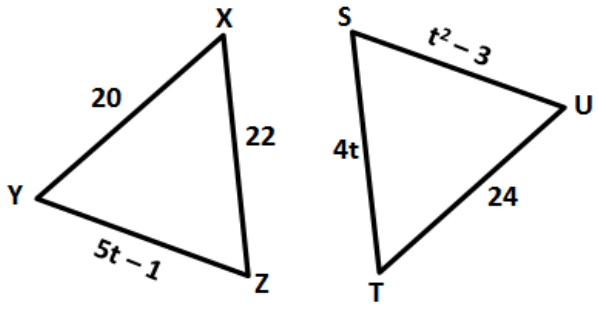
6) Given that *ΔCDE ≅ ΔHIJ,* DE = 9x, and IJ = 7x + 3, find x and DE.

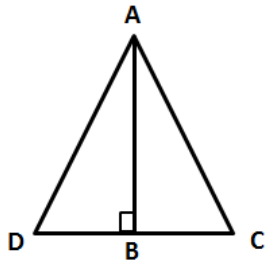
7) Show that ΔXYZ ≅ ΔSTU when t = 5.



8) Use the statement/reason bank to complete the proof.

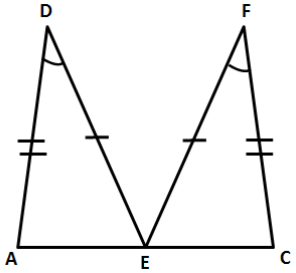
Definition of a Midpoint	B is the midpoint of $\overline{DC}$.	$\overline{AB} \cong \overline{AB}$
Given	$\overline{DB} \cong \overline{BC}$	ΔABD ≅ ΔABC
⊥lines form 4 right angles.	Given	$\overline{AB} \perp \overline{DC}$
∠ABD and ∠ABC are right angles.	Right ∠'s ≅ Thm.	SAS Postulate
Reflexive Property	∠ABD ≅ ∠ABC	

Given: B is the midpoint of $\overline{DC}$. $\overline{AB} \perp \overline{DC}$
Prove: ΔABD ≅ ΔABC



Directions: Determine if the following triangles are congruent by SSS, SAS, ASA, AAS, or HL. If they are, write a congruence statement to show the triangles are congruent.

9)



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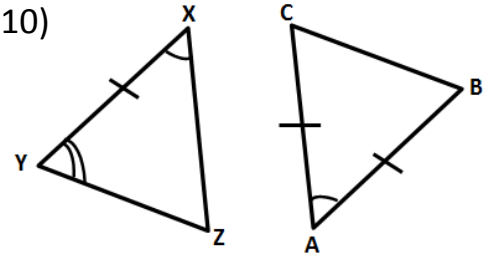
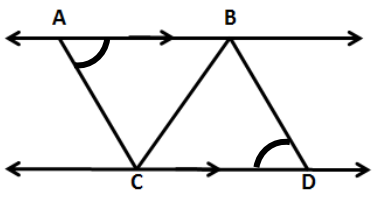
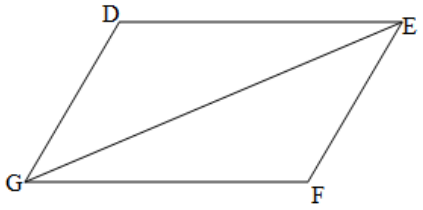


11)

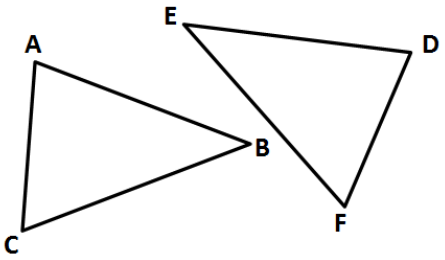


12) Given: $\overline{DE} \parallel \overline{GF}$; $\overline{DE} \cong \overline{GF}$
Prove: $\Delta EGF \cong \Delta GED$



State the third congruence that is needed to prove that ΔABC ≅ ΔDEF.

13) Given: $\overline{AB} \cong \overline{DE}$, ∠A ≅ ∠D, __?__ ≅ __?__
Use the AAS Congruence Theorem.



14) Given: $\overline{AB} \cong \overline{DE}$, $\overline{AC} \cong \overline{DF}$, __?__ ≅ __?__
Use the SAS Congruence Postulate.

15) Given: $\overline{AC} \cong \overline{DF}$, ∠C ≅ ∠F, __?__ ≅ __?__
Use the ASA Congruence Postulate.

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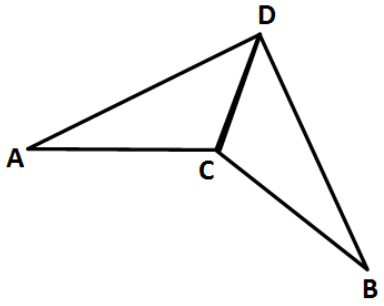
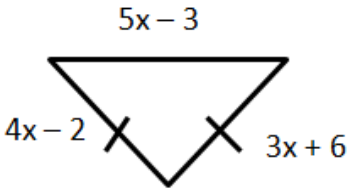
16) Given: $\overline{DC}$ bisects ∠ADB, ∠B ≅ ∠A
Prove: $\Delta ADC \cong \Delta BDC$

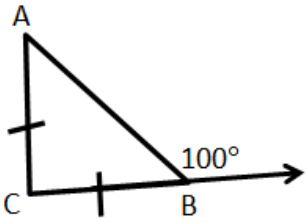


17) What is the length of the longest side?

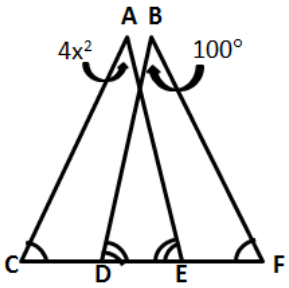


Directions: Find the missing information.

18) m∠A



19) The value of x.



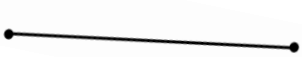
20) What is the measure of the vertex angle in an isosceles triangle if a base angle measures 45°?

21) In an isosceles triangle, a vertex angle measures 3x and a base angle measures x. What is the measure of each of the angles in the isosceles triangle?

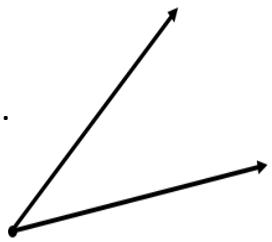
Directions: Complete each construction.

22) Copy the line segment.

23) Bisect the line segment.



24) Copy the angle.



25) Bisect the angle.