

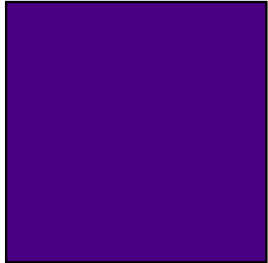
August 27, 2018

What does triangle congruency mean?

Find an explanation and a picture, using technology.

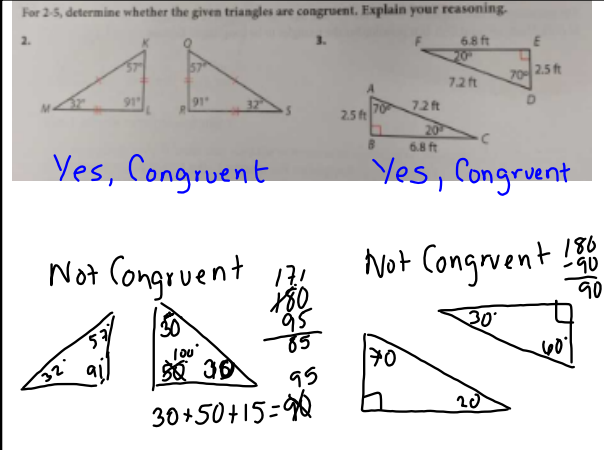
Aug 24-10:10 AM

Now the triangle sum theorem using paper.....



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For 2-5, determine whether the given triangles are congruent. Explain your reasoning.



Yes, Congruent

Yes, Congruent

Not Congruent

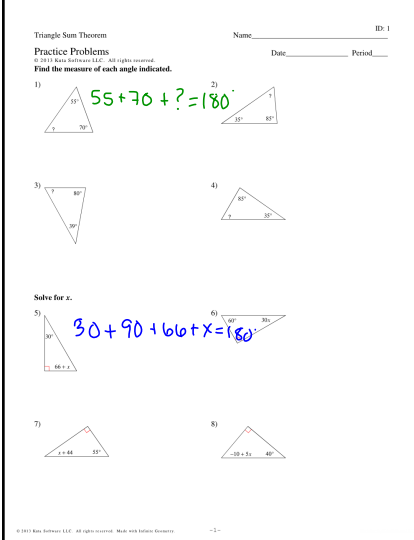
Not Congruent

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Triangle Sum Theorem

Practice Problems

Find the measure of each angle indicated.



1) $55 + 70 + ? = 180$

2) $180 - 90 = 90$

3) $180 - 90 = 90$

4) $180 - 90 = 90$

Solve for x.

5) $30 + 90 + 60 + x = 180$

6) $180 - 90 = 90$

7) $180 - 90 = 90$

8) $180 - 90 = 90$

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Choose 2 from #1-4

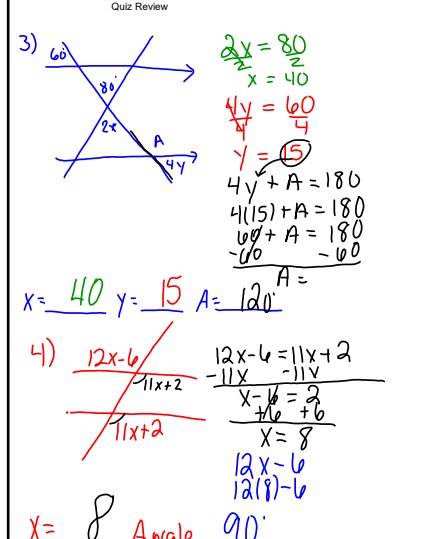
Choose 2 from #5-8

Choose 3 from #10-16

Circle these in red pen, please!

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Quiz Review



3) 60 , 80 , $2x$, $4y$, A

$2x = 80$
 $x = 40$

$4y = 60$
 $y = 15$

$4y + A = 180$
 $4(15) + A = 180$
 $60 + A = 180$
 -60
 -60
 $A = 120$

$x = 40$ $y = 15$ $A = 120$

4) $12x - 6$, $11x + 2$, $11x + 2$

$12x - 6 = 11x + 2$
 $-11x$
 $x - 6 = 2$
 $+6$
 $x = 8$

$12x - 6$
 $12(8) - 6$
 $x = 8$ Angle 90

Aug 28-12:18 PM

5) $7x+2+108=180$
 $7x+110=180$
 $-110 \quad -110$
 $7x=70$
 $x=10$

6) $9x=99$
 $x=11$

Bonus: $2x+100=180$
 $-100 \quad -100$
 $2x=80$
 $x=40$

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p278-279 #11-15

11. Find w to find the measure of the exterior angle. $68+68+a=180$
 $136+a=180$
 $-136 \quad -136$
 $a=44$
 $a+w=180$
 $44+w=180$
 $-44 \quad -44$
 $w=136$

12. Find x to find the measure of the remote interior angle. $C+13x=180$
 $-134 \quad -134$
 $C=46$
 $x+46+46=180$
 $x+92=180$
 $-92 \quad -92$
 $x=88$

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b. Find $m\angle H$. Determine the measure of the indicated exterior angle in the diagram. Match each angle with its corresponding measure, given $m\angle 1 = 130^\circ$ and $m\angle 7 = 70^\circ$.

a. A 50°
 b. B 60°
 c. C 70°
 d. E 110°
 e. F 120°

$6x-1+5x+17+b=180$
 $11x+16+b=180$
 $11x+70=180$
 $-70 \quad -70$
 $11x=110$
 $x=10$
 $\angle H = 6x-1$
 $\angle H = 59$

$70+70+\angle 6=180$
 $140+\angle 6=180$
 $\angle 6=40$

$70+110+\angle 3=180$
 $180+\angle 3=180$
 $\angle 3=0$

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August 29, 2018

Find z . $69+85+a=180$
 $154+a=180$
 $-154 \quad -154$
 $a=26$
 $a+z=180$
 $26+z=180$
 $-26 \quad -26$
 $z=154$

Find b . $56+78+B=180$
 $134+B=180$
 $-134 \quad -134$
 $B=46$
 $46+B+2=180$
 $108+B=180$
 $-108 \quad -108$
 $B=72$

Find $\angle BCA$. $41+101+C=180$
 $142+C=180$
 $-142 \quad -142$
 $C=38$

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Triangle Congruency Manipulative

	Side	Angle	Side	Angle	Hypotenuse
are congruent if ...	Side	Angle	Angle	Side	Leg
SSS	Side	Side	Side	Angle	HL
SAS	SSS	AAS	SAS	ASA	
AAS					
ASA					
HL can be used					

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Unit 2 - Similarity Congruence & Proofs

isosceles triangle - label all parts

isosceles vocabulary, please define.

isosceles triangle -

leg -


vertex angle -


base -


base angle -


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
Geometry _____ Name _____ ID: 1
 © 2014 Holt Rinehart and Winston, LLC. All rights reserved. What congruency statement is used (if any)? Date _____ Period _____
 Determine if the two triangles are congruent. If they are, state how you know.


1)  SAS

2)  Reflexive property
AAS

3)  AAS


4)  Not congruent


5)  SSS


6)  Not congruent


© 2014 Holt Rinehart and Winston, LLC. All rights reserved. What congruency statement is used (if any)?


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7)  SSS

8)  Not congruent

9)  Not congruent

10)  HL


11)  SSS


12)  HL


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
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13-18 then let me see!

13)  SAS

14)  AAS


15)  SAS

16)  ASA


17)  NOT CONGRUENT


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18)  ASA

State what additional information is required in order to know that the triangles are congruent for the reason given.

19) HL 

20) SAS 

21) HL 

22) SSS 

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Copy Equilateral Triangle Theorem & Converse of the Equilateral Triangle Theorem.



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
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
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Geometry _____ Name _____ ID: 1
 Finding side & angles of isosceles and equilateral triangles Period _____



Find the value of x .

1)  2) 

3)  4) 



5)  6) 



7)  8) 



9)  10) 



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

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11)  12) 

13)  14) 

15)  16) 

17)  18) 

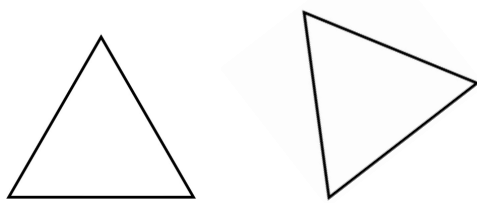
19)  20) 

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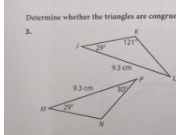
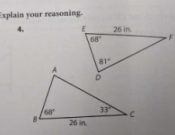
copy ASA triangle congruence theorem

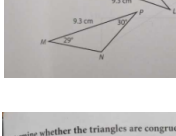
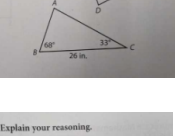


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p206 #3-6

Determine whether the triangles are congruent. Explain your reasoning.

3.  4. 

5.  6. 

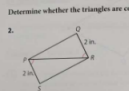
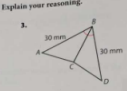
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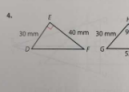
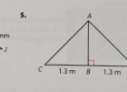
p213 copy the SAS triangle congruence theorem

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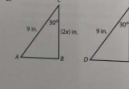
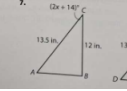
p216 #2-7

Determine whether the triangles are congruent. Explain your reasoning.

2.  3. 

4.  5. 

Find the value of the variable that results in congruent triangles. Explain.

6.  7. 

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p222

copy SSS triangle congruence

Aug 24-12:06 PM

p227 #4-11

Identify a sequence of rigid motions that maps one side of $\triangle ABC$ onto one side of $\triangle DEF$.

In each figure, identify the perpendicular bisector and the line segment it bisects, and explain how to use the information to show that the two triangles are congruent.

Prove that the triangles are congruent or explain why this is not possible.

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p246 copy the AAS congruence statement

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p 250 #1-6

For 1-6, decide whether you have enough information to determine that the triangles are congruent. If they are congruent, explain why.

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p256 copy HL congruence theorem

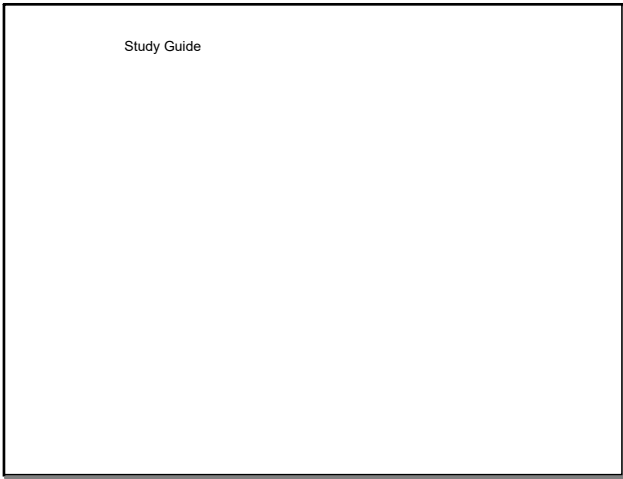
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p258 2-5, 10-13

Determine whether enough information is given to prove that the triangles are congruent. Explain your answer.

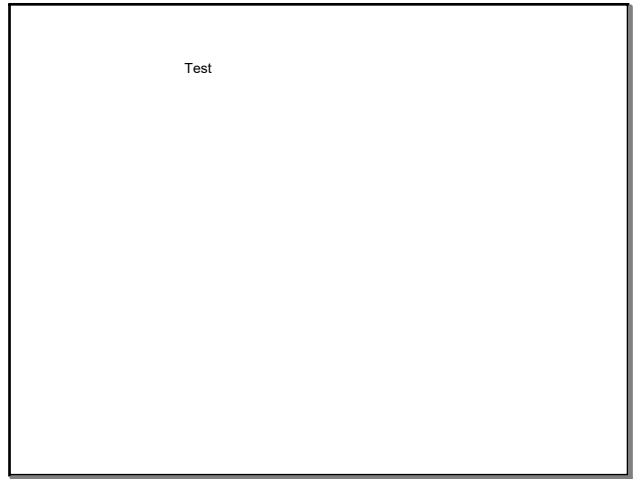
Algebra: What value of x will make the given triangles congruent? Explain.

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Study Guide

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Test

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Aug 24-12:25 PM