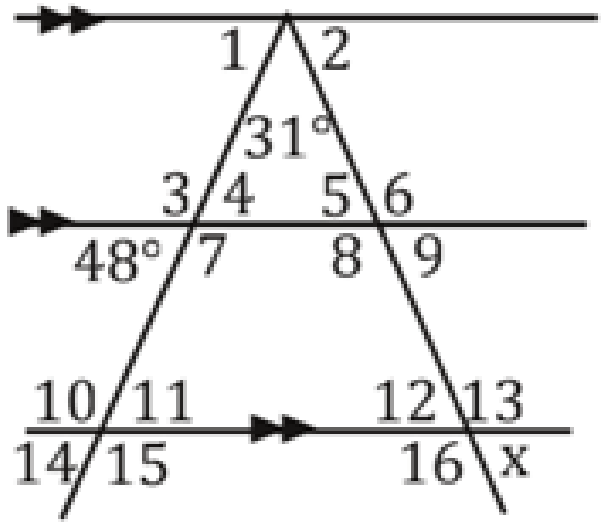
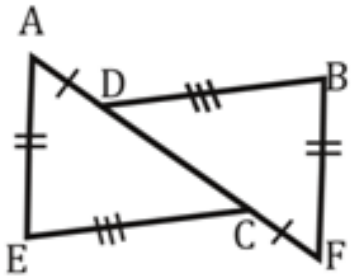
WARM UP

Friday, November 14, 2014

1. Find the angle measure of x.



2. Prove $\Delta AEC \cong \Delta FBD$



3. Expand the log statement $\log \frac{x^2 y}{\sqrt{z}}$

1 2 3 4 5 6 7 8 9 10

Objectives

Write proofs involving similar triangles.

Homework

Triangle packet, section 6, all problems

ALL Make Up Tests for the Log and Exponents Unit must be completed by Monday November 17th .
No exceptions.

ALL Retakes for the Log and Exponents Unit must be completed by Friday November 21st.

No exceptions.

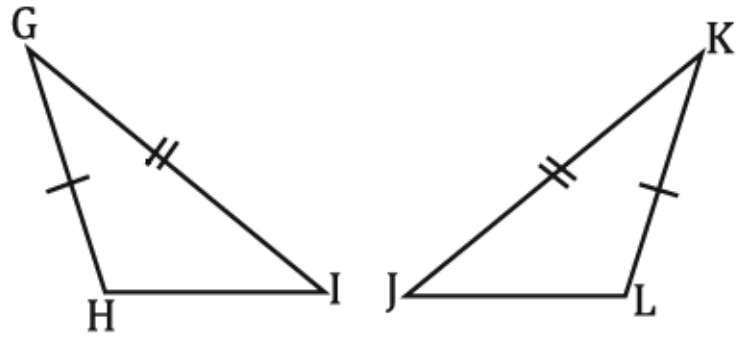
On a sticky note, write the day you will be taking the test.

You **MUST** bring your test corrections with you to be eligible for a retake.

Homework review

Fill in the missing information in each proof.

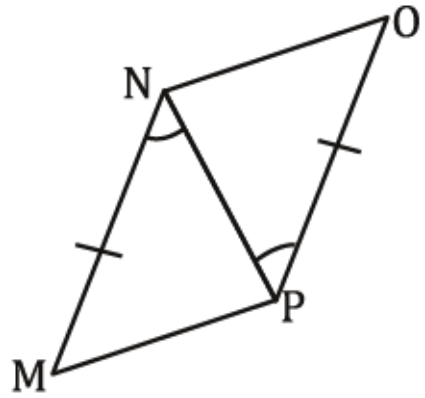
4. Given: $\overline{GH} \cong \overline{KL}$, $\angle G \cong \angle K$, and $\overline{GI} \cong \overline{KJ}$



Prove: $\overline{HI} \cong \overline{LJ}$

Statements	Reasons
1. $\overline{GH} \cong \overline{KL}$	1. Given
2. $\angle G \cong \angle K$	2. Given
3. $\overline{GI} \cong \overline{KJ}$	3. Given
4. $\triangle GHI \cong \triangle KLJ$	4. SAS
5. $\overline{HI} \cong \overline{LJ}$	5. CPCTC

5. Given: $\angle MNP \cong \angle OPN$, and $\overline{MN} \cong \overline{OP}$

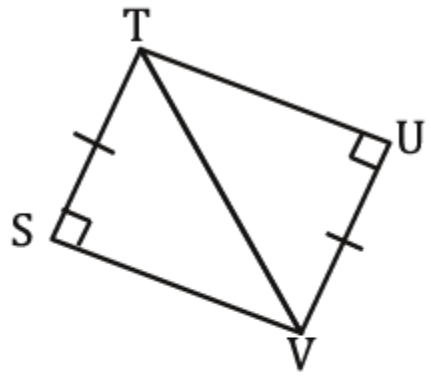


Prove: $\overline{MP} \cong \overline{NO}$

Statements	Reasons
1. $\angle MNP \cong \angle OPN$	1. Given
2. $\overline{MN} \cong \overline{OP}$	2. Given
3. $\overline{NP} \cong \overline{NP}$	3. Reflexive Property
4. $\triangle MNP \cong \triangle OPN$	4. SAS
5. $\overline{MP} \cong \overline{NO}$	5. CPCTC

Homework review

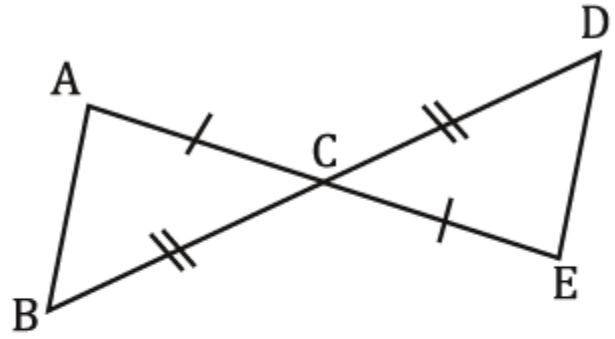
6. Given: $\overline{ST} \cong \overline{VU}$



Prove: $\angle SVT \cong \angle UTV$

Statements	Reasons
1. $\overline{ST} \cong \overline{VU}$	1. Given
2. $\overline{TV} \cong \overline{TV}$	2. Reflexive Property
3. $\triangle STV \cong \triangle UVT$	3. HL
4. $\angle SVT \cong \angle UTV$	4. CPCTC

7. Given: $\overline{AC} \cong \overline{CE}$, $\overline{DC} \cong \overline{BC}$

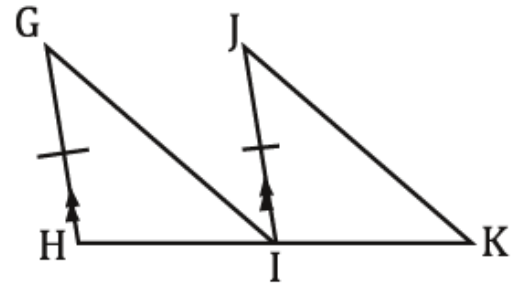


Prove: $\angle B \cong \angle D$

Statements	Reasons
1. $\overline{AC} \cong \overline{CE}$	1. Given
2. $\overline{DC} \cong \overline{BC}$	2. Given
3. $\angle ACB \cong \angle DCE$	3. Alternate Interior
4. $\triangle ABC \cong \triangle DEF$	4. SAS
5. $\angle B \cong \angle D$	5. CPCTC

Homework review

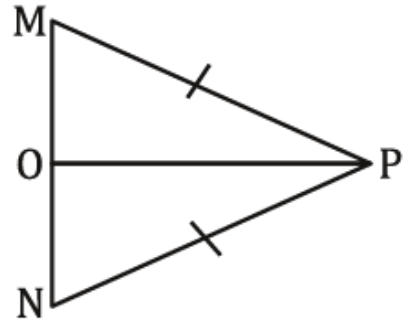
8. Given: $\overline{GH} \| \overline{JI}$, I is the midpoint of HK and $\overline{GH} \cong \overline{JI}$



Prove: $\angle G \cong \angle J$

Statements	Reasons
1. $\overline{GH} \| \overline{JI}$	1. Given
2. I is the midpoint of $\overline{HK}$	2. Given
3. $\overline{GH} \cong \overline{JI}$	3. Given
4. $\overline{HI} \cong \overline{IK}$	4. Midpoint
5. $\angle GHI \cong \angle JIK$	5. Corresponding
6. $\Delta GHI \cong \Delta JIK$	6. SAS
7. $\angle G \cong \angle J$	7. CPCTC

9. Given: $\overline{MP} \cong \overline{NP}$, $\overline{MN} \perp \overline{OP}$



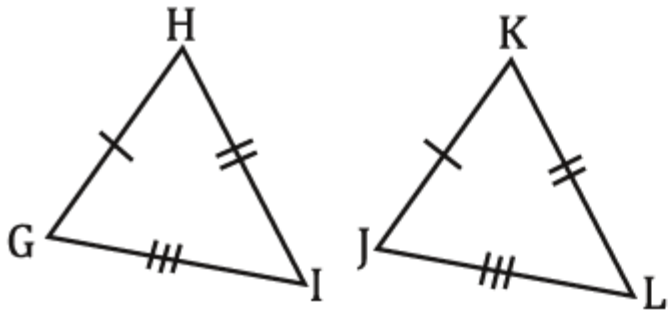
Prove: $\overline{MO} \cong \overline{ON}$

Statements	Reasons
1. $\overline{MP} \cong \overline{NP}$	1. Given
2. $\overline{MN} \perp \overline{OP}$	2. Given
3. $\overline{OP} \cong \overline{OP}$	3. Reflexive Property
4. $\Delta MOP \cong \Delta NOP$	4. HL
5. $\overline{MO} \cong \overline{ON}$	5. CPCTC

Homework review

Write a two column proof for each.

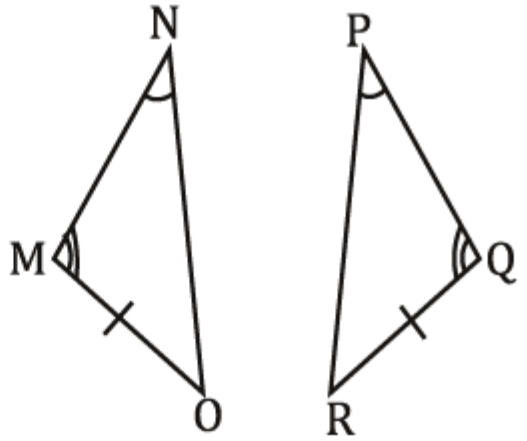
16. Given: $\overline{GH} \cong \overline{JK}$, $\overline{HI} \cong \overline{KL}$, and $\overline{IG} \cong \overline{LJ}$



Prove: $\angle I \cong \angle L$

Statements	Reasons
1. $\overline{GH} \cong \overline{JK}$	1. Given
2. $\overline{HI} \cong \overline{KL}$	2. Given
3. $\overline{IG} \cong \overline{LJ}$	3. Given
4. $\triangle ABC \cong \triangle EDC$	4. SSS
5. $\angle I \cong \angle L$	5. CPCTC

17. Given: $\angle N \cong \angle P$, $\angle M \cong \angle Q$, and $\overline{MO} \cong \overline{QR}$

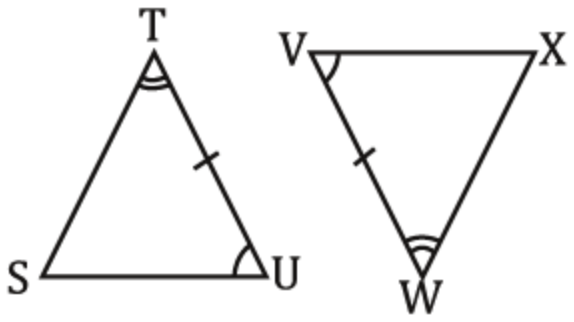


Prove: $\angle O \cong \angle R$

Statements	Reasons
1. $\angle N \cong \angle P$	1. Given
2. $\angle M \cong \angle Q$	2. Given
3. $\overline{MO} \cong \overline{QR}$	3. Given
4. $\triangle MNO \cong \triangle QPR$	4. AAS
5. $\angle O \cong \angle R$	5. CPCTC

Homework review

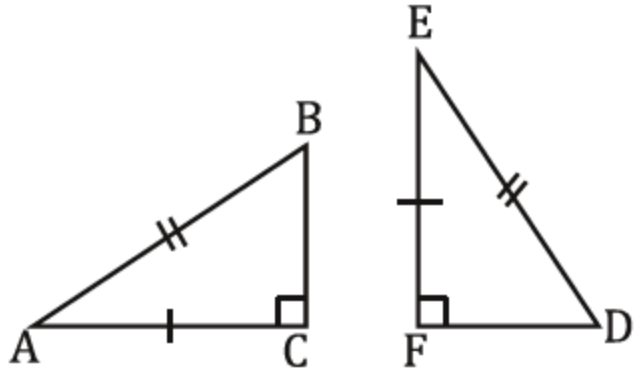
18.
Given: $\angle U \cong \angle V$, $\angle T \cong \angle W$, and $\overline{TU} \cong \overline{VW}$



Prove: $\angle S \cong \angle X$

Statements	Reasons
1. $\angle U \cong \angle V$	1. Given
2. $\angle T \cong \angle W$	2. Given
3. $\overline{TU} \cong \overline{VW}$	3. Given
4. $\triangle STU \cong \triangle WVX$	4. ASA
5. $\angle S \cong \angle X$	5. CPCTC

19. Given: $\overline{AC} \cong \overline{EF}$, and $\overline{AB} \cong \overline{ED}$



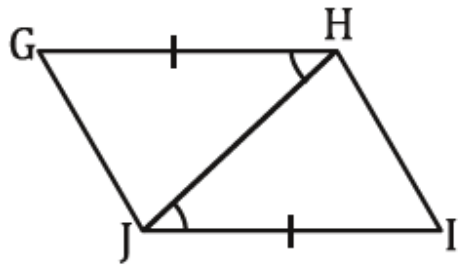
Prove: $\overline{BC} \cong \overline{FD}$

Statements	Reasons
1. $\overline{AC} \cong \overline{EF}$	1. Given
2. $\overline{AB} \cong \angle \overline{ED}$	2. Given
3. $\triangle STU \cong \triangle WVX$	3. HL
4. $\overline{BC} \cong \overline{FD}$	4. CPCTC

Homework review

20.

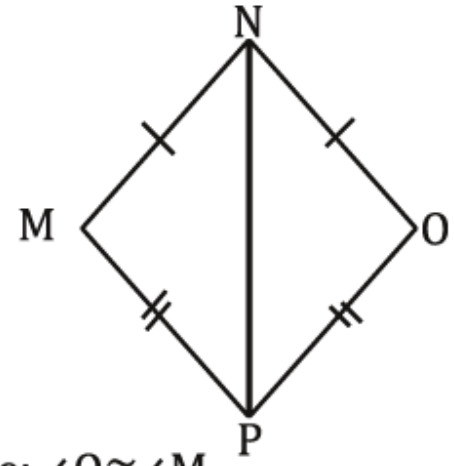
Given: $\overline{GH} \cong \overline{JI}$, $\angle GHJ \cong \angle IJH$



Prove: $\overline{GJ} \cong \overline{HI}$

Statements	Reasons
1. $\overline{GH} \cong \overline{JI}$	1. Given
2. $\angle GHJ \cong \angle IJH$	2. Given
3. $\overline{JH} \cong \overline{JH}$	3. Reflexive Property
4. $\triangle GHJ \cong \triangle IJH$	4. SAS
5. $\overline{GJ} \cong \overline{HI}$	5. CPCTC

21. Given: $\overline{MN} \cong \overline{NO}$, $\overline{MP} \cong \overline{OP}$

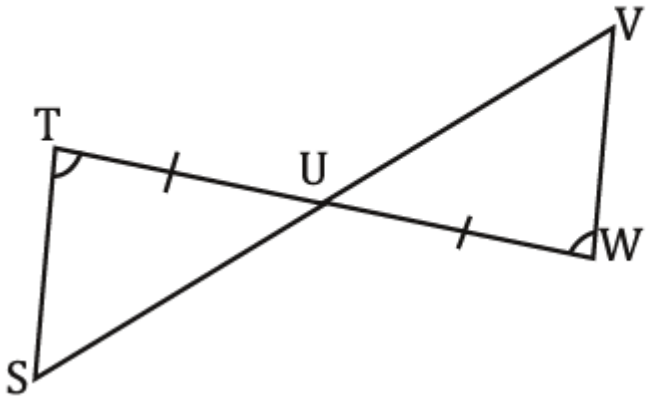


Prove: $\angle O \cong \angle M$

Statements	Reasons
1. $\overline{MN} \cong \overline{NO}$	1. Given
2. $\overline{MP} \cong \overline{OP}$	2. Given
3. $\overline{NP} \cong \overline{NP}$	3. Reflexive Property
4. $\triangle MNP \cong \triangle ONP$	4. SSS
5. $\angle O \cong \angle M$	5. CPCTC

Homework review

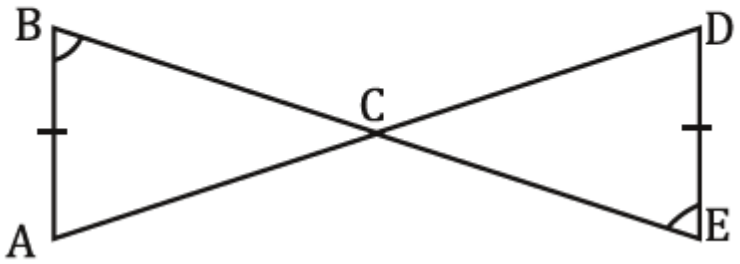
22. Given: $\overline{TU} \cong \overline{WU}$, $\angle T \cong \angle W$



Prove: $\overline{TS} \cong \overline{WV}$

Statements	Reasons
1. $\overline{TU} \cong \overline{WU}$	1. Given
2. $\angle T \cong \angle W$	2. Given
3. $\angle TUS \cong \angle WUV$	3. Vertical Angles
4. $\triangle GHJ \cong \triangle IJH$	4. ASA
5. $\overline{TS} \cong \overline{WV}$	5. CPCTC

23. Given: $\overline{AB} \cong \overline{DE}$, $\angle B \cong \angle E$

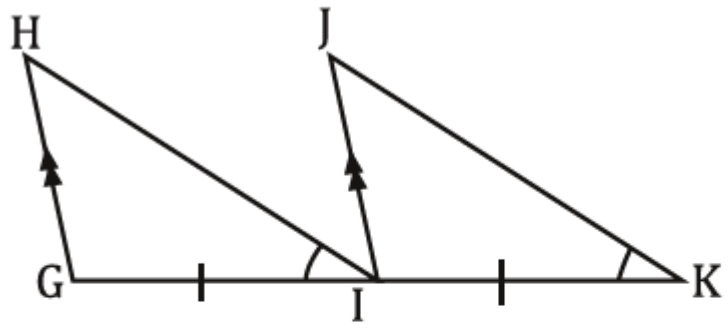


Prove: $\overline{AC} \cong \overline{DC}$

Statements	Reasons
1. $\overline{AB} \cong \overline{DE}$	1. Given
2. $\angle B \cong \angle E$	2. Given
3. $\angle BCA \cong \angle DCE$	3. Vertical Angles
4. $\triangle ABC \cong \triangle DEC$	4. AAS
5. $\overline{AC} \cong \overline{DC}$	5. CPCTC

Homework review

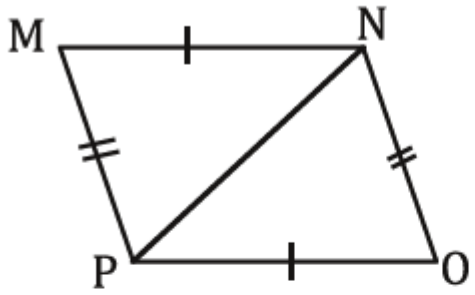
24. Given: $\overline{HG} \parallel \overline{JI}$, $\overline{GI} \cong \overline{IK}$, and $\angle HIG \cong \angle JKI$



Prove: $\angle C \cong \angle F$

Statements	Reasons
1. $\overline{HG} \parallel \overline{JI}$	1. Given
2. $\overline{GI} \cong \overline{IK}$	2. Given
3. $\angle HIG \cong \angle JKI$	3. Given
4. $\angle HGI \cong \angle JIK$	4. Corresponding
4. $\triangle ABC \cong \triangle DEC$	4. ASA
5. $\angle C \cong \angle F$	5. CPCTC

25. Given: $\overline{MN} \cong \overline{PO}$, $\overline{MP} \cong \overline{NO}$

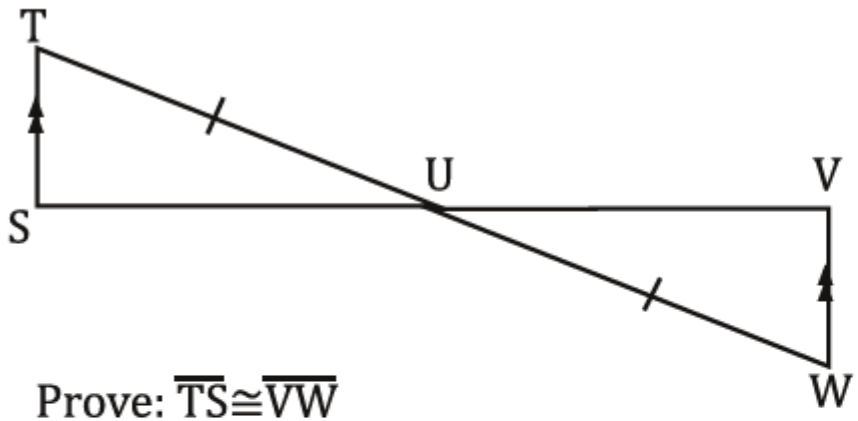


Prove: $\angle M \cong \angle O$

Statements	Reasons
1. $\overline{MN} \cong \overline{PO}$	1. Given
2. $\overline{MP} \cong \overline{NO}$	2. Given
3. $\overline{PN} \cong \overline{PN}$	3. Reflexive Property
4. $\triangle ABC \cong \triangle DEC$	4. SSS
5. $\angle M \cong \angle O$	5. CPCTC

Homework review

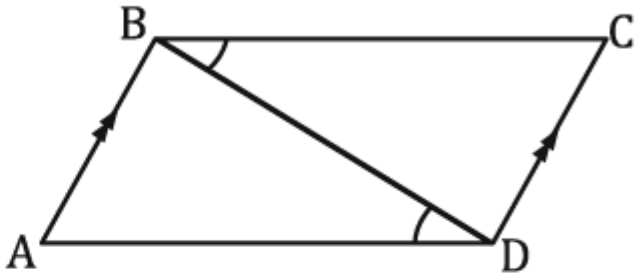
26. Given: $\overline{TS} \| \overline{VW}$, $\overline{TU} \cong \overline{WU}$



Prove: $\overline{TS} \cong \overline{VW}$

Statements	Reasons
1. $\overline{TS} \| \overline{VW}$	1. Given
2. $\overline{TU} \cong \overline{WU}$	2. Given
3. $\angle STU \cong \angle VWU$	3. Alternate Interior
4. $\angle TUS \cong \angle WUV$	4. Vertical
4. $\triangle STU \cong \triangle VWU$	4. ASA
5. $\overline{TS} \cong \overline{VW}$	5. CPCTC

27. Given: $\overline{AB} \| \overline{DE}$, $\angle CBD \cong \angle ADB$



Prove: $\overline{BC} \cong \overline{AD}$

Statements	Reasons
1. $\overline{AB} \| \overline{DE}$	1. Given
2. $\angle CBD \cong \angle ADB$	2. Given
3. $\angle ABD \cong \angle CDB$	3. Alternate Interior
4. $\overline{BD} \cong \overline{BD}$	4. Reflexive Property
5. $\triangle STU \cong \triangle VWU$	5. ASA
6. $\overline{BC} \cong \overline{AD}$	6. CPCTC

Homework

Each pair of figures is similar. Find the missing length.

9. Ratio of similarity =2/3.

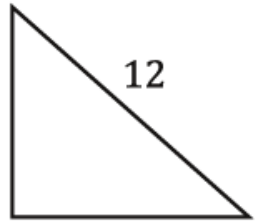
$\frac{2}{3} = \frac{8}{x}$

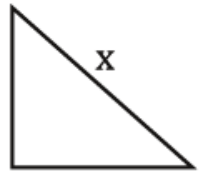
$2(x)=3(8)$

$\frac{2x}{2}=\frac{24}{2}$

$x=12$

10. Ratio of similarity =4/5.





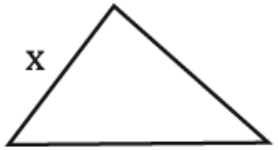
$\frac{4}{5} = \frac{x}{12}$

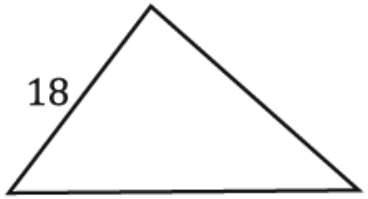
$5(x)=4(12)$

$\frac{5x}{5}=\frac{48}{5}$

$x=9.6$

11. Ratio of similarity =2/7.





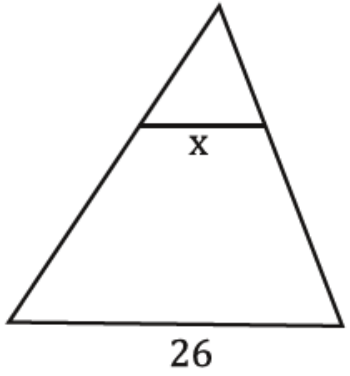
$\frac{2}{7} = \frac{x}{18}$

$7(x)=2(18)$

$\frac{7x}{7}=\frac{36}{7}$

$x=5.14$

12. Ratio of similarity =5/13.



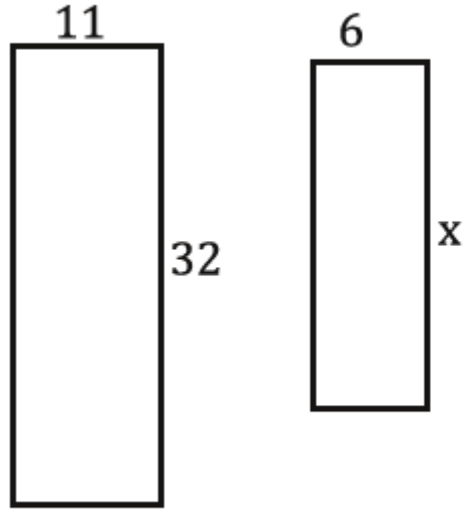
$\frac{5}{13} = \frac{x}{26}$

$13(x)=5(26)$

$\frac{13x}{13}=\frac{130}{13}$

$x=10$

13.



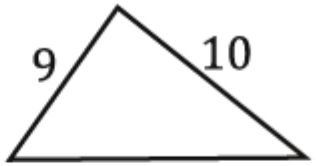
$\frac{6}{11} = \frac{x}{32}$

$11(x)=6(36)$

$\frac{11x}{11}=\frac{192}{11}$

$x=17.45$

14.

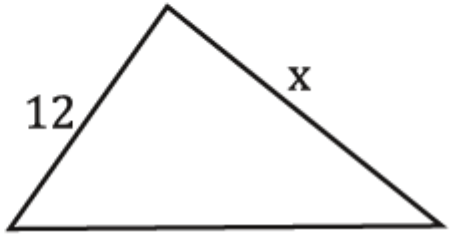


$\frac{9}{12} = \frac{10}{x}$

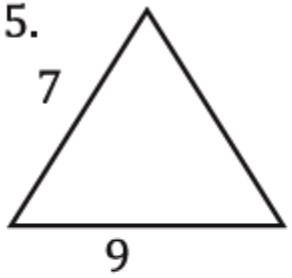
$9(x)=12(10)$

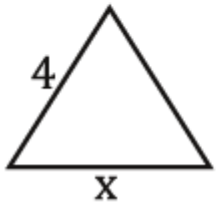
$\frac{9x}{9}=\frac{120}{9}$

$x=13.33$



15.





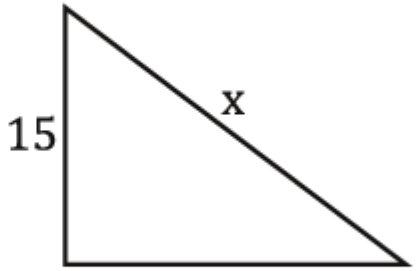
$\frac{4}{7} = \frac{x}{9}$

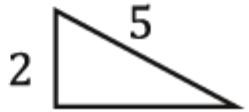
$7(x)=4(9)$

$\frac{7x}{7}=\frac{36}{7}$

$x=5.14$

16.





$\frac{2}{15} = \frac{5}{x}$

$2(x)=15(5)$

$\frac{2x}{2}=\frac{75}{2}$

$x=37.5$

160

Bubble the correct answer choice from each item above.

#7.	#8.	#9.	#10.	#11.	#12.
○ A.	○ A.	○ A.	○ A.	○ A.	○ A.
○ B.	○ B.	○ B.	○ B.	● B.	● B.
● C.	○ C.	● C.	● C.	○ C.	○ C.
○ D.	● D.	○ D.	○ D.	○ D.	○ D.

Bubble the correct answer choice from each item above.

#25.	#26.	#27.	#28.	#29.	#30.
○ A.	○ A.	○ A.	● A.	○ A.	○ A.
● B.	○ B.	○ B.	○ B.	○ B.	○ B.
○ C.	● C.	○ C.	○ C.	● C.	○ C.
○ D.	○ D.	● D.	○ D.	○ D.	● D.

Bubble the correct answer choice from each item above.

#31.	#32.	#33.	#34.	#35.	#36.
○ A.	○ A.	○ A.	○ A.	● A.	● A.
○ B.	○ B.	○ B.	● B.	○ B.	○ B.
● C.	○ C.	○ C.	○ C.	○ C.	○ C.
○ D.	● D.	● D.	○ D.	○ D.	○ D.

Quiz Today!

Your **Similarity** Theorems

SSS – Side Side Side

SAS – Side Angle Side

AAA – Angle Angle Angle

How are these different from the **Congruency** Theorems?

We look at the **RATIO** of side lengths.

Perfect practice makes perfect!

Work you your triangles packet. It is due tomorrow.

If you finish it before you leave, you can accumulate credits for a 2 point addition to your unit test grade.

You'll need 5 credits for 2 points.