EQ: SRT.2 How do I determine if two triangles are similar?

Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question

Week 2, Lesson 1

1. Warm Up
2. SRT.1 Quiz
3. Notes
4. Left-side practice
5. Closure

10

Similar Triangles

11

Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-u

Warm Up:

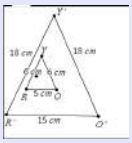
To prepare for the quiz, take a minute to review your notes and the left-side practices on pages 6-7 and pages 8-9 of your interactive notebook. Then, self-assess with the following questions.

1. Do you know how to graph coordinates?
2. Do you know how to apply a dilation?
3. Do you know how to find the slope of segments?
4. Do you know how to find the lengths of segments?
5. Do you know how to find ratios?
6. Do you know the different properties of dilations?

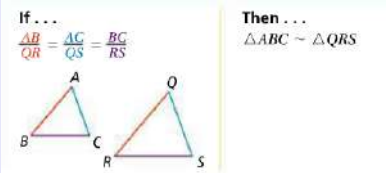
SRT.1 Quiz

notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes - notes -

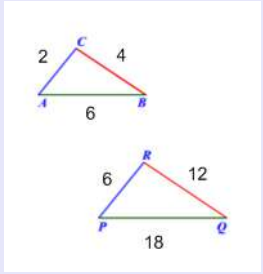
Side-Side-Side Similarity SSS~



If the corresponding sides of 2 triangles are proportional, then the triangles are similar

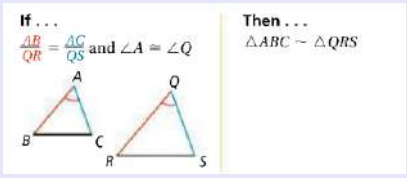


Ex 1 : Are the two triangles similar? If so explain why and provide a similarity statement. If not, explain why.



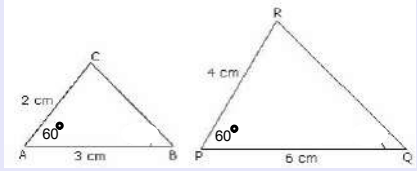
Side-Angle-Side Similarity SAS~

If an angle of 1 triangle is congruent to another and the sides that include those angles are proportional, then the triangles are similar



*In similar triangles, **SIDES** are **PROPORTIONAL** and *ANGLES* are *CONGRUENT*.

Ex 2: Are the two triangles similar? If so explain why and provide a similarity statement. If not, explain why.

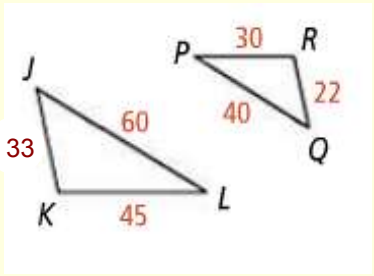


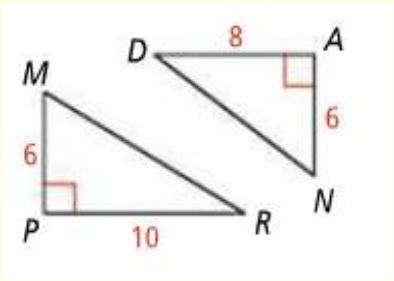
Summary:

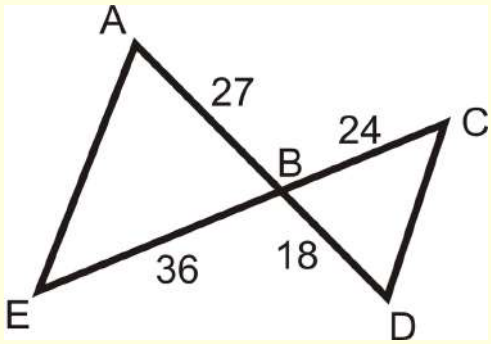
Left-Side Practice

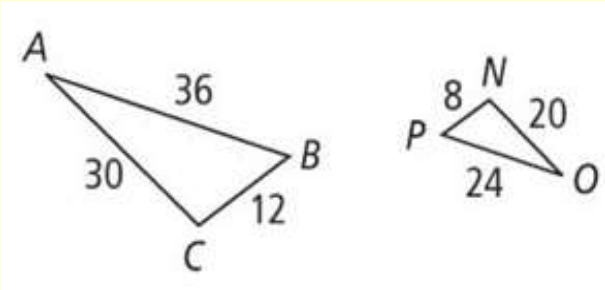
For each of the following pairs of triangles...

Are the two triangles similar? If so, explain why and provide a similarity statement. If not, explain why. Show all of your work.









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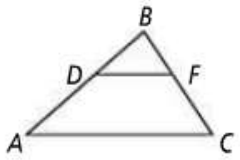
Right Side...

Write a summary that answers the essential question.

Left Side...

$\triangle ABC \sim \triangle DBF$. Complete each statement.



7. $m\angle A = m\angle$?

8. $\frac{AB}{DB} = \frac{BC}{\blacksquare}$

EQ: SRT.2 How do I determine if two triangles are similar?

Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question

Week 2, Lesson 2

1. Warm Up
2. Left-Side Practice
3. Independent Practice
4. Closure

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Similar Triangles

13

Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-u

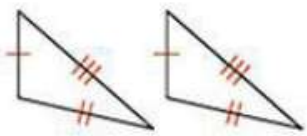
Warm Up:

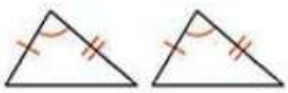
1. In your own words, summarize SSS~ and SAS~.

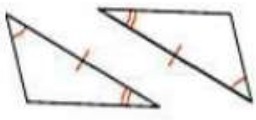
2. Draw a picture to illustrate SSS~.

3. Draw a picture to illustrate SAS~.

How can you prove that the triangles are congruent?

62. 

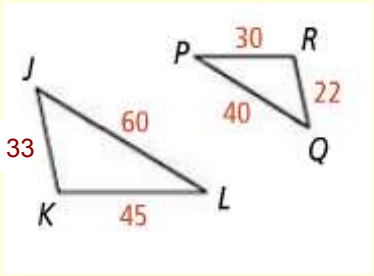
63. 

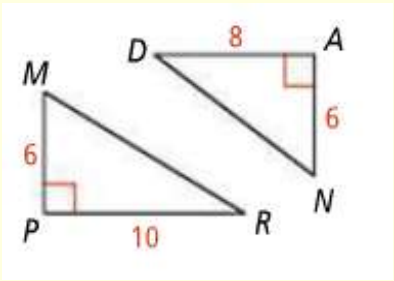
64. 

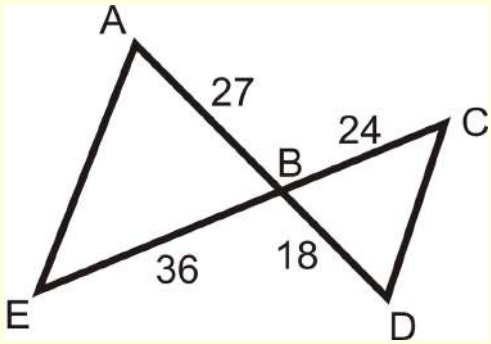
Left-Side Practice

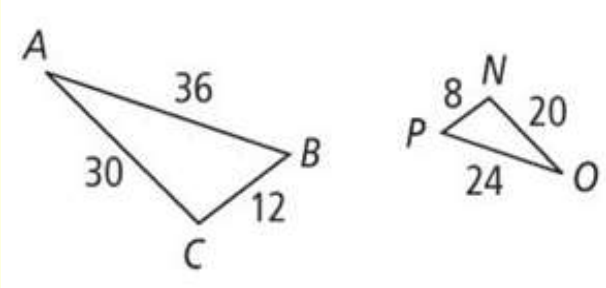
For each of the following pairs of triangles...

Are the two triangles similar? If so, explain why and provide a similarity statement. If not, explain why. Show all of your work.







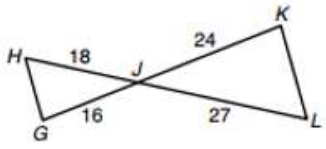


Name _____ pd _____ IAN.page 10

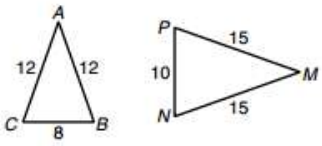
SRT.2 Practice

For each of the pair of triangles shown below, determine if the two triangles are similar. If so, explain why AND provide a similarity statement. If not, explain why. Show all of your work.

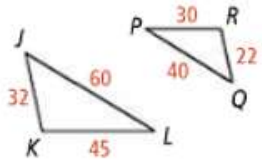
1.



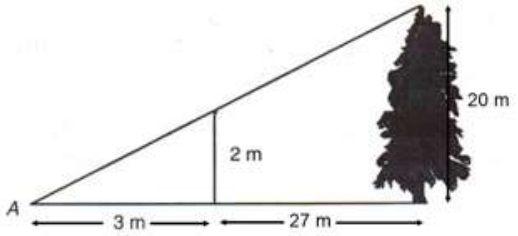
2.



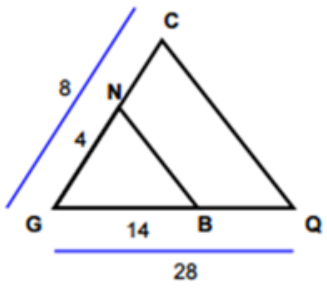
3.



4. Are the two triangles shown similar? If so, explain why. If not, explain why.



5. Are the two triangles shown similar? If so, explain why and provide a similarity statement. If not, explain why.



Midterm Review...

6. $\triangle ABC$ is dilated, with the center of dilation at the origin, to form $\triangle A'B'C'$. Which of the following statements may be **false**?

(a) $\angle ABC \cong \angle A'B'C'$ (b) $\triangle ABC \cong \triangle A'B'C'$ (c) $\triangle ABC \sim \triangle A'B'C'$ (d) $\frac{AB}{A'B'} = \frac{AC}{A'C'}$

7. Two polygons are similar if their corresponding angles are _____ and their corresponding sides are _____.

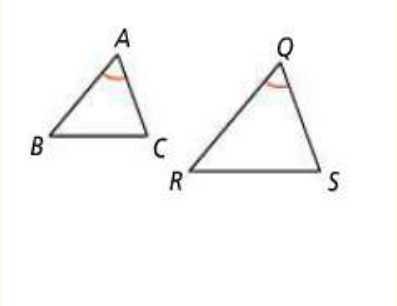
Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure

Right Side...

Write a summary that answers the essential question.

Left Side...

Is there enough information to prove the following 2 triangles similar? If so, how? If not, what additional information is needed?



EQ: SRT.3 How do I prove triangles similar using AA~?

Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question

Week 2, Lesson 3

1. Warm Up
2. TI-NSpire activity
3. Notes
4. Left-Side Practice
5. Closure

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Similar Triangles

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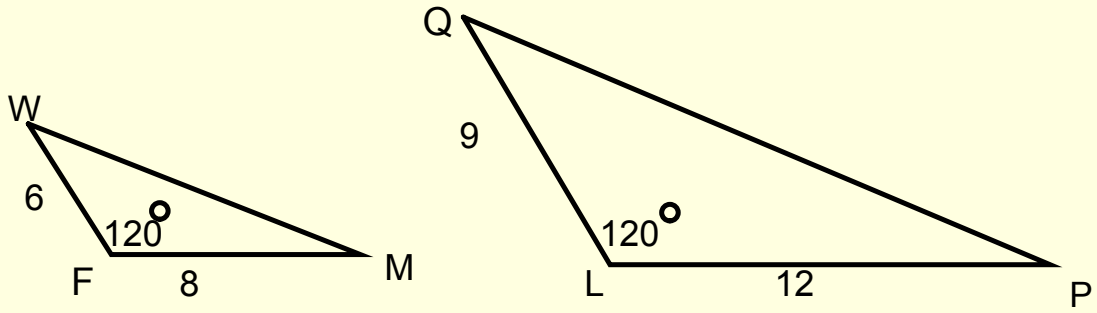
Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-u

Warm Up:

Are the two triangles shown below similar? If so, explain why and write a similarity statement. If not, explain why.

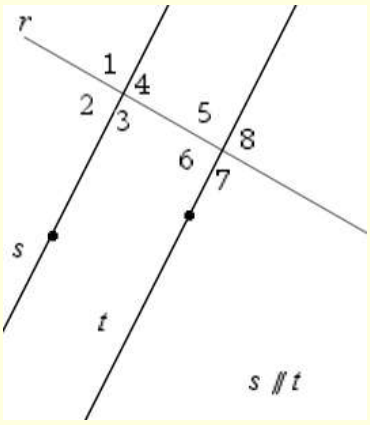


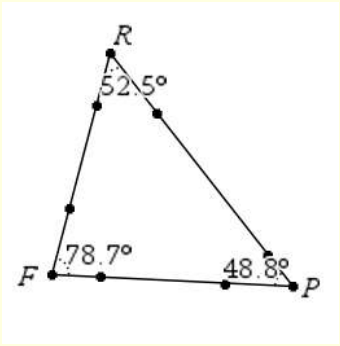
TI-NSpire Activity

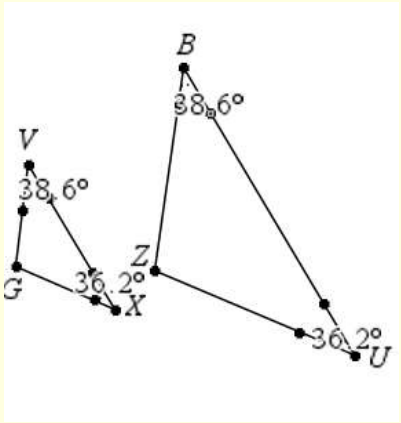
Welcome to "1st Semester Review."

To move through the tabs, you can use your mouse, or press [ctrl] and then left/right.

If you need help, please ask your team!

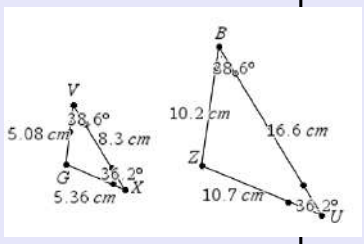


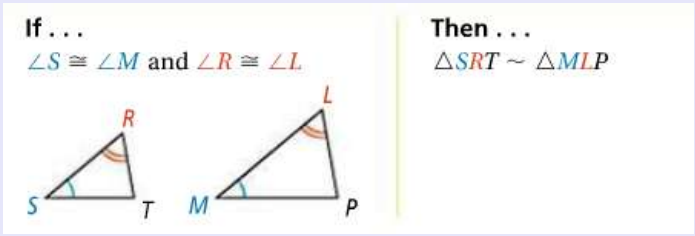




Angle-Angle Similarity AA~

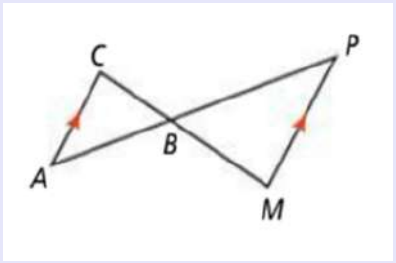
If 2 angles of one triangle are congruent to 2 angles of another triangle, then the triangles are similar



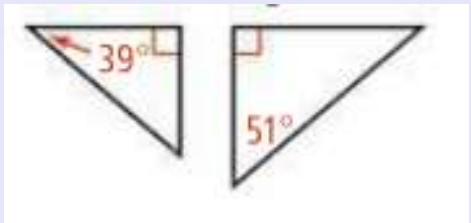


This theorem is based on the fact that the 3 angles of a triangle always add to 180°.

Ex 1: Given the diagram below, explain how the two triangles are similar by AA~.



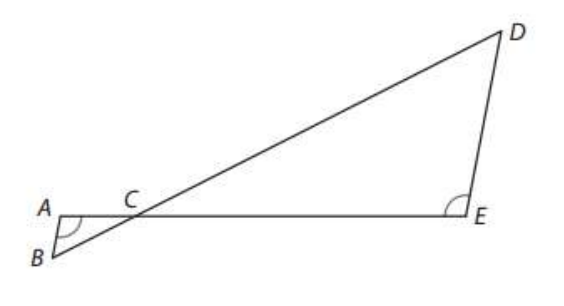
Ex 2: Given the diagram below, explain how the two triangles are similar by AA~.

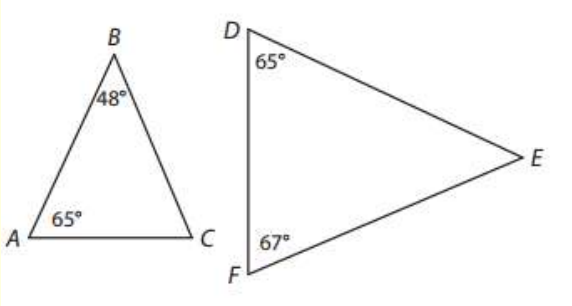


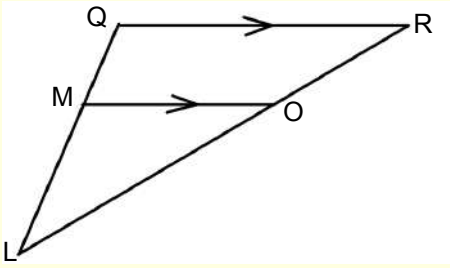
Summary:

Left-Side Practice

Determine if the following sets of triangles are similar. If they are, state the reason why and write a similarity statement.







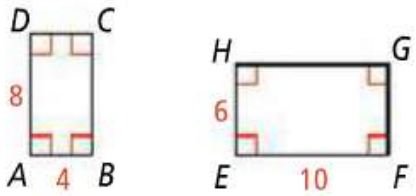
Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure

Right Side...

Write a summary that answers the essential question.

Left Side...

Are the two polygons shown below similar? If so, give the similarity ratio of the first polygon to the second. If not, explain.



EQ: SRT.3 How do I prove triangles similar using AA~?

Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question Essential Question

Week 2, Lesson 4

1. Warm Up
2. Practice WS
3. Similarity Fold-able
4. Closure

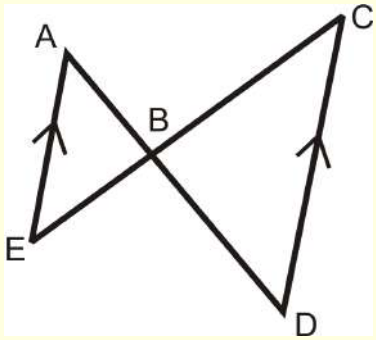
r Triangles

No notebooks today

Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-up Warm-u

Warm Up:

Given the diagram below, explain how the two triangles are similar by AA~.



Similarity Fold-able

FOLD along the SOLID lines

CUT along the DOTTED lines

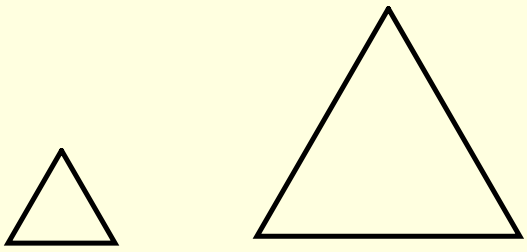
You will complete your fold-able using examples and descriptions.

You will also need to draw a picture example for some of the terms.

SSS~

description of SSS~

picture example of SSS~



Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure Closure

Right Side...

Write a summary that answers the essential question.

Left Side...

Writing The size of an oil spill on the open ocean is difficult to measure directly. Use the figure at the right to describe how you could find the length of the oil spill indirectly. What measurements and calculations would you use?