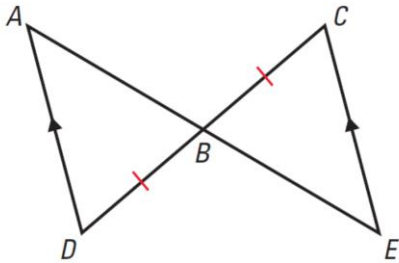


Name:	Integrated Math 2 – Chapter 2 Final Review	Directions: You must show all of your work to receive full credit.
Date:	Period:	

Use the triangle congruence theorems to decide whether or not each pair of triangles must be congruent. Base your decision on the markings, not on appearances. Justify your answer. Cite the triangle congruence theorem you use and write the congruency statement.

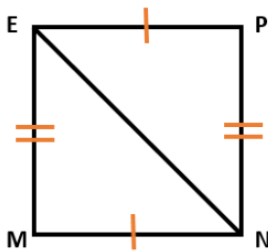
1.



Theorem: \_\_\_\_\_

Congruency Statement: \_\_\_\_\_

2.



Theorem: \_\_\_\_\_

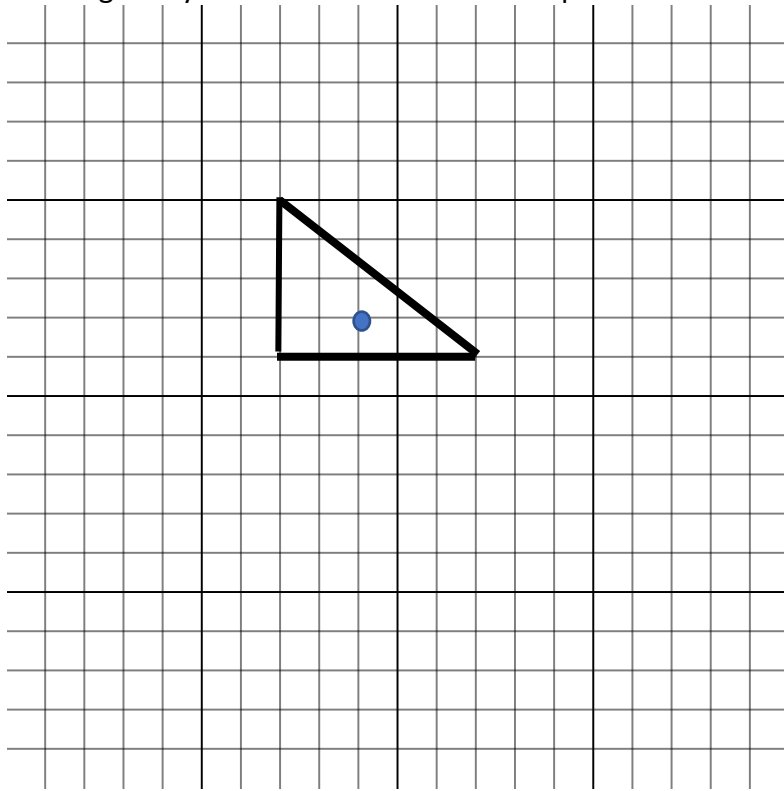
Congruency Statement: \_\_\_\_\_

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3. Write the converse of the statement and state whether or not the converse is true.

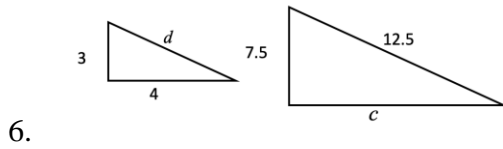
If two angles are vertical, then they are congruent angles.

4. Dilate the figure by a scale factor of 3 from the point indicated.

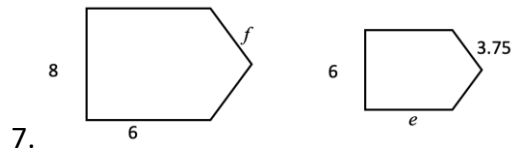


5. Calculate the perimeter and the area of the enlarged figure from problem #4.

For each pair of similar figures, state the ratio of similarity. Then use it to calculate the value of the missing variable. Diagrams are drawn roughly to scale; you can assume that sides that look longer are longer.

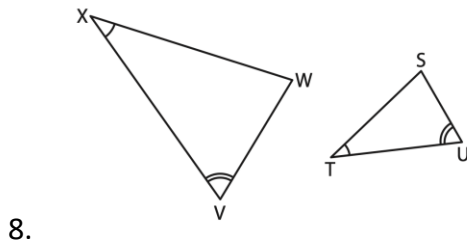


c: \_\_\_\_\_  
 d: \_\_\_\_\_  
 ratio of similarity: \_\_\_\_\_  
 (scale factor)

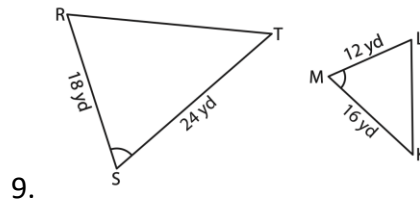


e: \_\_\_\_\_  
 f: \_\_\_\_\_  
 ratio of similarity: \_\_\_\_\_  
 (scale factor)

Determine if each pair of triangles is similar. If they are similar, justify your answer. If the triangles are similar, write a similarity statement.



Similarity Theorem? \_\_\_\_\_  
 Similarity Statement: \_\_\_\_\_



Similarity Theorem? \_\_\_\_\_  
 Similarity Statement: \_\_\_\_\_

10. A 50-foot flag pole casts a 35-foot shadow. Find the shadow cast by a nearby 100-foot tall building. Draw a picture and then find the missing shadow length.