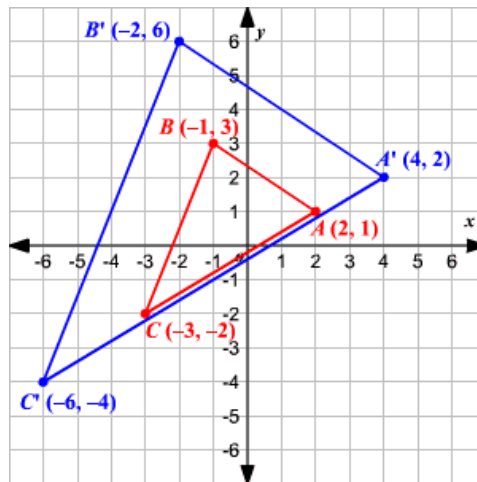
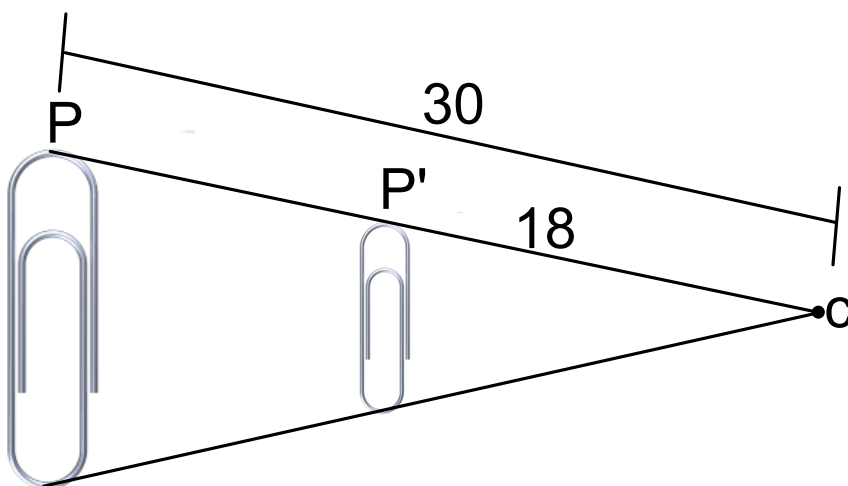


Unit 12 Day 1 Dilations and Transformations:

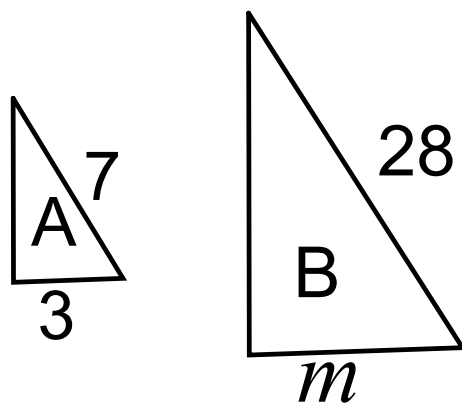


I can: _____

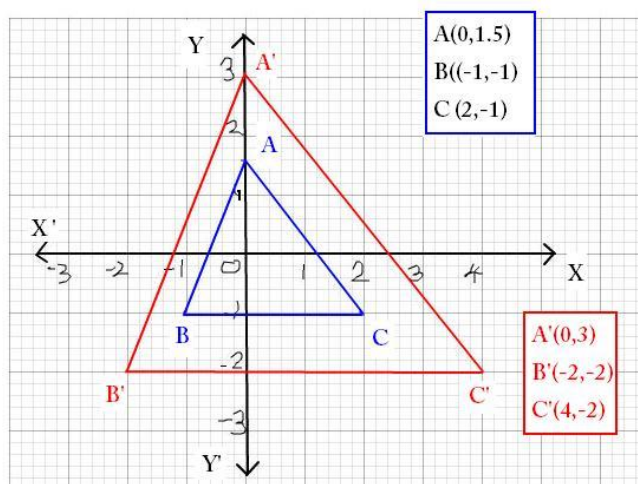
Dilation: **Indicate reduction or enlargement and scale factor**



Dilation: Indicate **reduction or enlargement** from figure A to figure B, then find m

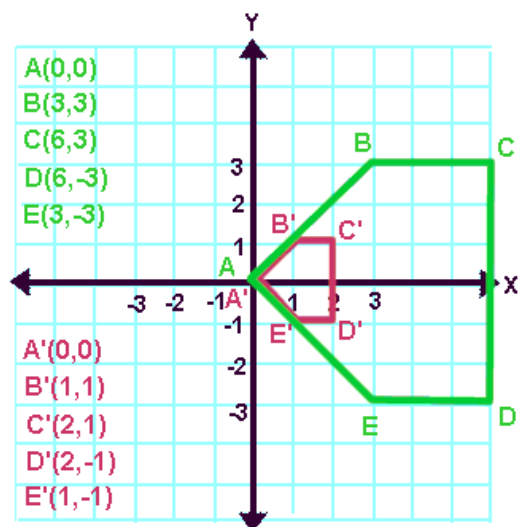


Dilation: Indicate **reduction or enlargement** and **scale factor**



What is the scale factor?

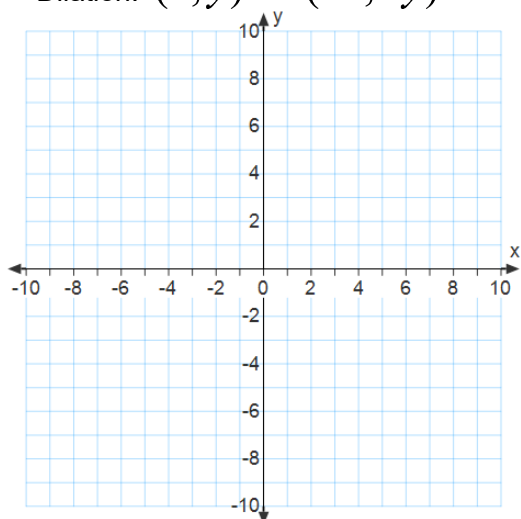
Is this an example of a reduction or an enlargement?



Graph $\triangle ABCD$ with vertices A(-2,4) B(2,4), C(4,2), D(-4,2)

What are the coordinates for A', B', C', D'?

Dilation: $(x, y) \rightarrow (2x, 2y)$

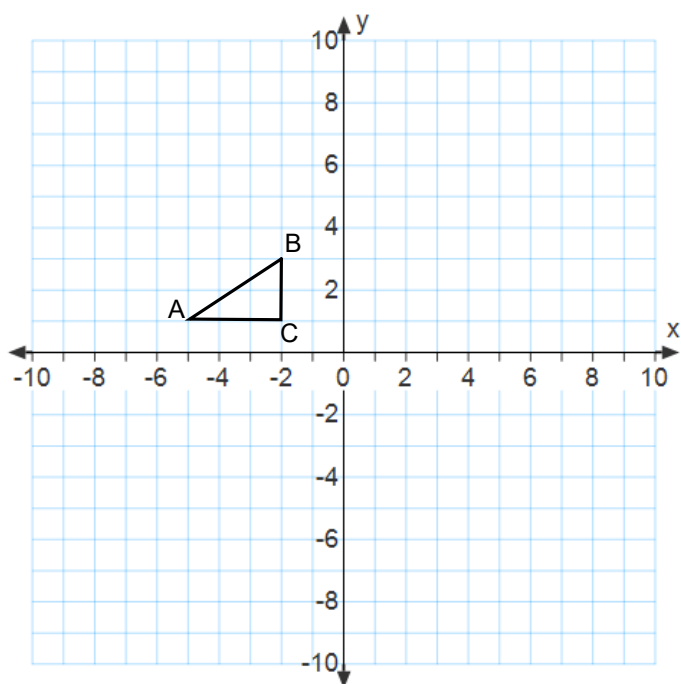


Given $\square ABCD$ with vertices A(-6,6) B(-1,6), C(1,3), D(-4,3).

Dilation: $(x,y) \rightarrow (\frac{1}{3}x, \frac{1}{3}y)$

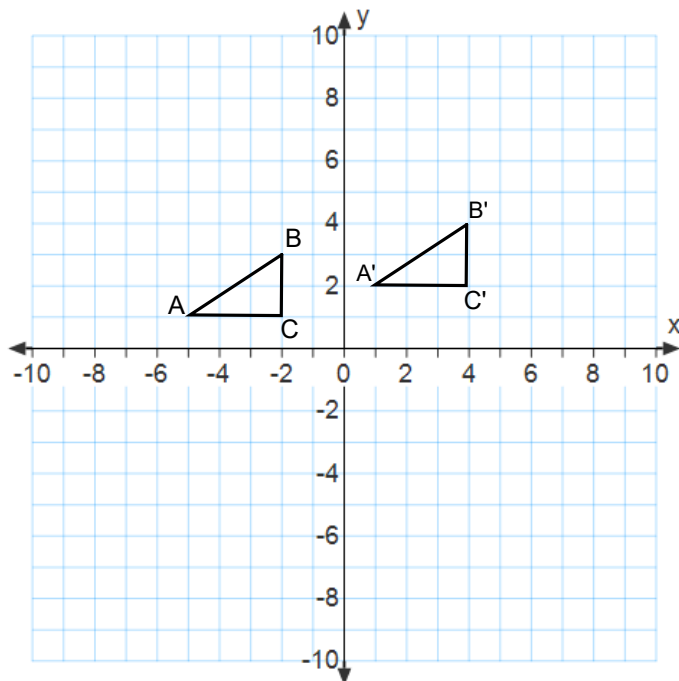
New vertices?

Translate $\triangle ABC$ 6 units right and 1 unit up



Translate $\triangle ABC$ 6 units right and 1 unit up

Dilate $\triangle A'B'C'$ by a scale factor of 2



Given $\triangle ABC$ with points: A(4,1), B(3,-2), C(-4,-2)

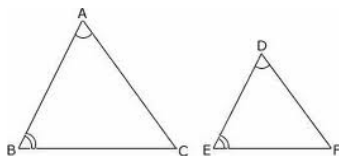
Dilation: $(x, y) \rightarrow (2x, 2y)$

Translation: $(x, y) \rightarrow (x - 3, y + 2)$

Given $\triangle ABC$ with points: $A(4,1)$, $B(3,-2)$, $C(-4,-2)$

Translation: $(x, y) \rightarrow (x + 2, y - 3)$

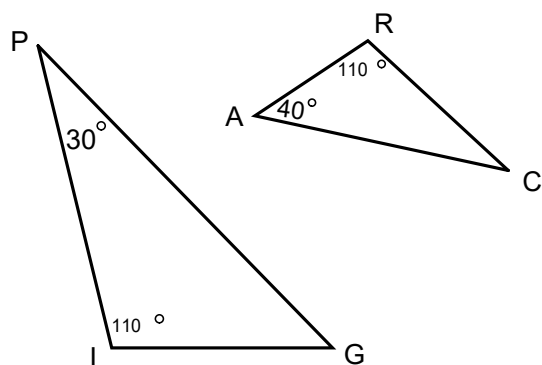
Dilation: $(x, y) \rightarrow (4x, 4y)$



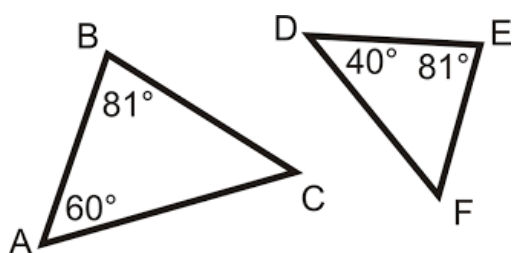
Angle-Angle Similarity Postulate ($AA \sim$)

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

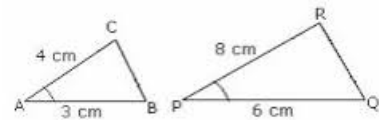
1. Are the two triangles similar? If they are write the similarity statement.



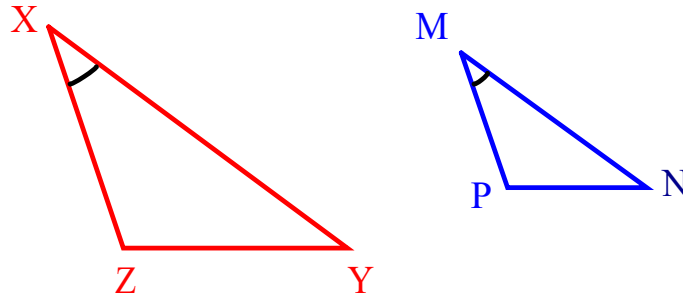
2. Are the two triangles similar? If they are write the similarity statement.



Side-Angle-Side (SAS) Similarity Theorem

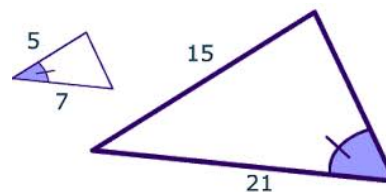


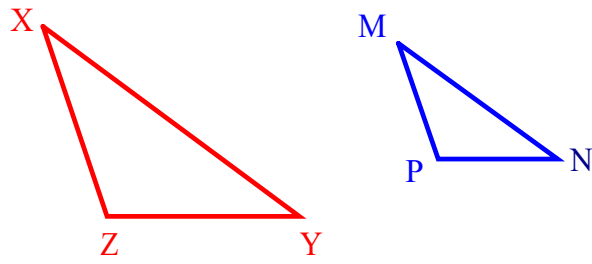
If an angle of one triangle is congruent to an angle of a second triangle and the lengths of the sides including these angles are proportional, then the triangles are similar.



If $\angle X \cong \angle M$ and $\frac{ZX}{PM} = \frac{XY}{MN}$, then $\triangle XYZ \sim \triangle MNP$

This is **not** an example of SAS Similarity. Why not?

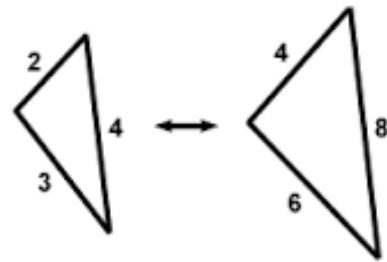




1. If angle Y is \cong to angle N, which 2 sides need to be proportionate for the triangles to be similar by SAS?
2. If $\frac{XZ}{MP} = \frac{ZY}{PN}$, which 2 angles need to be for the triangles to be similar by SAS?

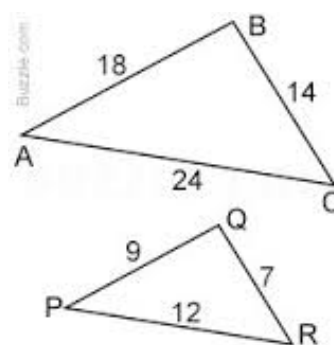
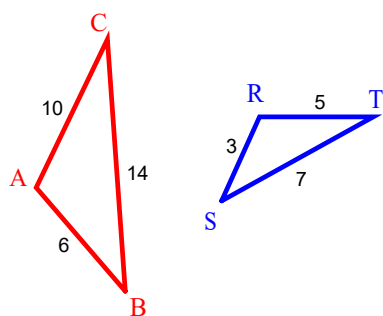
Side-Side-Side (SSS) Similarity Theorem

If the corresponding side lengths of two triangles are proportional, then the triangles are similar.

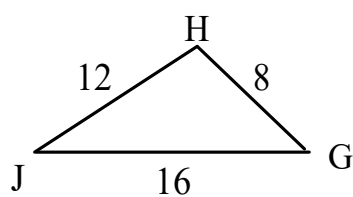
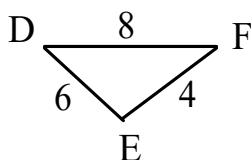
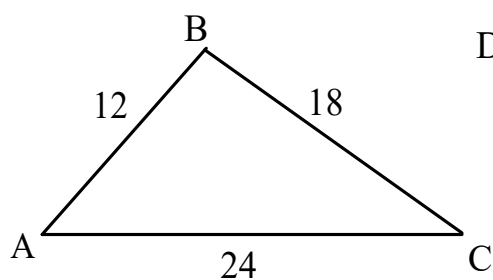


Are the two triangles similar?

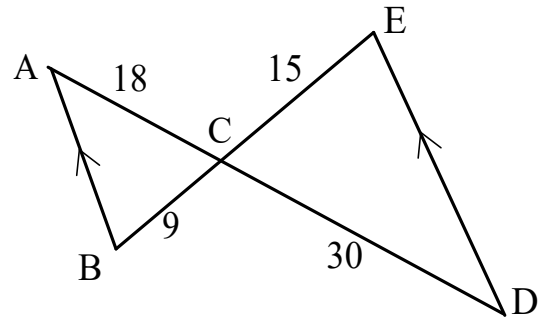
If they are write the similarity statement.



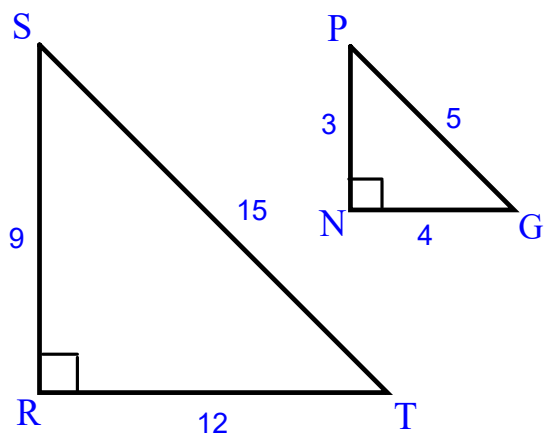
Which triangle is similar to $\triangle ABC$?



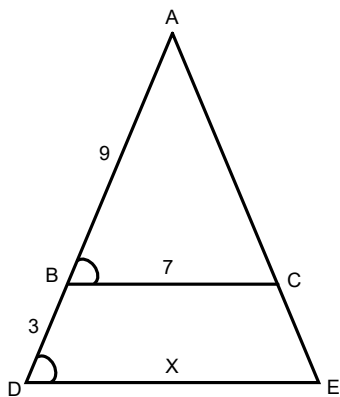
Name 2 different methods you would use to show that the triangles are similar.



State what method you would use to show that the triangles are similar.



Is there enough information to find the value of x ? If so, find the value of x .



Is $\triangle XZW \sim \triangle YZX$?

