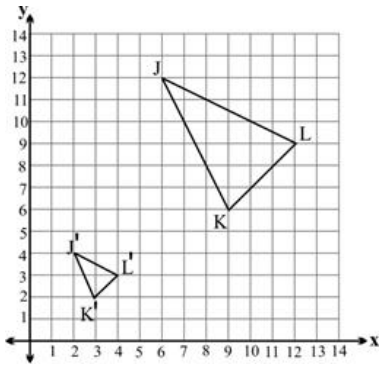
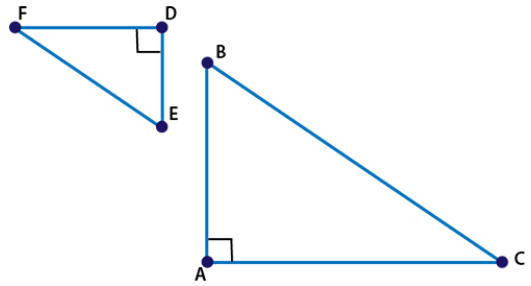
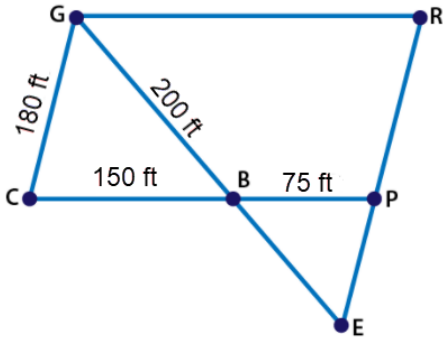
Module 3 Review Notes

Question/Topic:	Room to work & Video:
Key Words, Postulates, & Theorems: Corresponding Parts Angle-Angle Similarity Postulate Side-Angle-Side Similarity Postulate Side-Side-Side Similarity Postulate Triangle Proportionality Theorem Pythagorean Theorem Pieces of Right Triangle Similarity Theorem Dilations Similar Figures Scale Model Scale Factor Reduction Enlargement	***Please be sure you know and understand the meaning of each word, postulate, or theorem. These can all be found in the note guides throughout Module 3.**
Question 1:  Which scale factor was used to dilate triangle JKL from the origin to create triangle J'K'L'?	**Video:** https://bit.ly/Mod3Reviewtoolbox_Question1 ☐ **2** ☐ **3** ☐ **1/2** ☐ **1/3**
Question 2:  A series of rigid transformations maps ∠F onto ∠C where ∠F is congruent to ∠C. Determine if the following statement is true. segment BC ~ segment EF because corresponding parts of similar triangles are proportional	**Video:** https://bit.ly/Mod3Reviewtoolbox_video2

Question 3:
GRPC is a parallelogram.

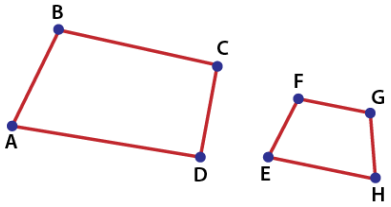
Part 1: Determine if triangles GBC and EBP are similar? Explain how you know.



Part 2: Find the distance from B to E and from P to E.

Video: http://bit.ly/Geo306-video9

Question 4:
A pool company is creating a blueprint for a family pool and a similar dog pool for a new client. If we translate EFGH so that point E of EFGH lies on point A of ABCD, then what statement explains how the company can determine whether pool ABCD is similar to pool EFGH?

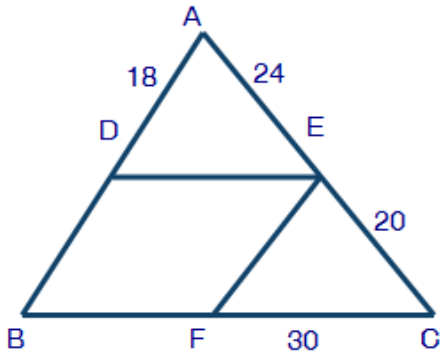


Video: https://bit.ly/Mod3Reviewtoolbox_video3

- ☐ dilate EFGH by the ratio segment EF over segment AB
- ☐ dilate EFGH by the ratio segment AB over segment EF

Question 5:
In the figure below, segment DE is parallel to segment BC and segment EF is parallel to AB. Use the theorem below to solve for Segments BD and BF.

Theorem: A line parallel to one side of a triangle divides the other two proportionately.

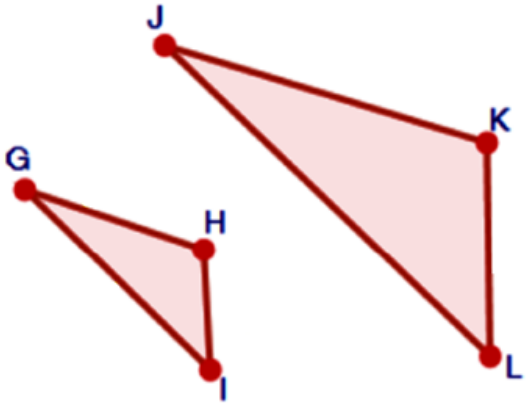


Video:
https://bit.ly/Module3Reviewtoolbox_Video4

BD=

BF=

Question 6:
A Toy Company is creating two similar pieces for a board game, as shown below. How could the toy maker confirm that the pieces are similar using the definition of similarity in terms of similarity transformations?



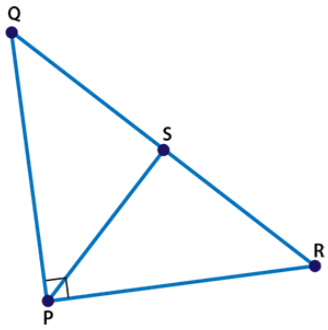
Verify ∠G ≅ ∠J and ∠I ≅ ∠L

- ☐ by reflection
- ☐ by dilation
- ☐ by translation

Video:
https://bit.ly/Module3Reviewtoolbox_video5

Question 7:
Carla is using triangle similarity to prove the Pythagorean Theorem. In the triangle PQR, angle P is 90° and segment PS is perpendicular to segment QR.

Part 1: Find a pair of similar triangles and explain why they are similar.

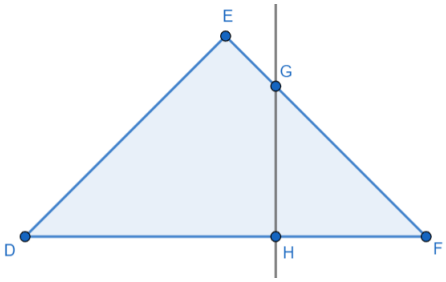


Part 2: If RS = 2 and RQ = 18, find the length of segment RP.

Video:http://bit.ly/Geo306-video10

Question 8:

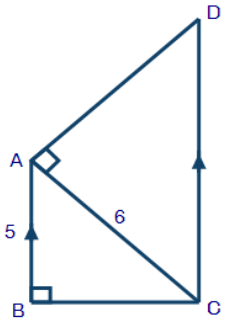
If ΔDEF is dilated from point D by a scale factor of $\frac{1}{3}$, which of the following equations is true about $\overline{G'H'}$?



- ☐ $\overline{G'H'} = \overline{GH}$
- ☐ $\overline{G'H'} = 3\overline{GH}$
- ☐ $\overline{G'H'} = \frac{1}{3}\overline{GH}$
- ☐ $\overline{G'H'} = 2\overline{GH}$

Video:
https://bit.ly/V22_Mod3ReviewToolbox_video1

***Geometry EOC Review:**
Given the side lengths of the triangles, find the length of segment CD.



Video:https://bit.ly/Module3Reviewtoolbox_Video 7

****Honors only*:**
Triangle TUV and triangle ABC are shown in the graph.

Triangle TUV	Triangle ABC
T (16, 6)	A (-8, 3)
U (6, 6)	B (-3, 3)
V (10, -4)	C (-5, -2)

What two transformations would map triangle TUV to triangle ABC?

Video: https://bit.ly/V22_304_video6