SPARK Hybrid Education Center

Mathematics | Upper Level

Triangle Similarity

Name: _____ Date: _____ Score: _____

UNIT TOPICS

* AA, SAS~, SSS~ similarity theorems
* Scale factor and proportional sides
* Triangle proportionality theorem

PRACTICE PROBLEMS - Show all work

1. Name the 3 triangle similarity theorems: ___

2. Two triangles each have angles 40 and 75 degrees. Are they similar? Which theorem? ___

3. Triangle ABC ~ Triangle DEF with scale factor 3. If AB = 6, find DE: ___

4. Triangle ABC ~ Triangle DEF. AB = 4, DE = 12. What is the scale factor? ___

5. A line parallel to BC cuts AB at D and AC at E. What theorem relates AD/DB and AE/EC? ___

6. If AD = 4, DB = 6, AE = 5, find EC using the proportionality theorem: ___

7. True or False: All equilateral triangles are similar to each other. ___

8. True or False: All isosceles triangles are similar to each other. ___

9. A 6-ft person has a 4-ft shadow. A tree's shadow is 20 ft. Find the tree's height: ___

10. Explain the difference between congruent and similar triangles.

TEACHER ANSWER KEY - Triangle Similarity

Answers (accept equivalent responses and correct reasoning):

1. [Grade based on correct application of concept taught this week]
2. [Grade based on correct application of concept taught this week]
3. [Grade based on correct application of concept taught this week]
4. [Grade based on correct application of concept taught this week]
5. [Grade based on correct application of concept taught this week]
6. [Grade based on correct application of concept taught this week]
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