

Math III Similarity Review

Angle-Angle Similarity (AA) Postulate – If two angles of one triangle are congruent to two angles in another triangle, then the two triangles are similar

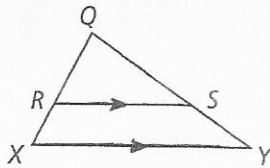
Side-Angle-Side Similarity (SAS) Postulate – If an angle of one triangle is congruent to an angle of a second triangle, and the sides that include the two angles are proportional, then the two triangles are similar

Side-Side-Side Similarity (SSS) Postulate – If the corresponding sides of two triangles are proportional, then the triangles are similar.

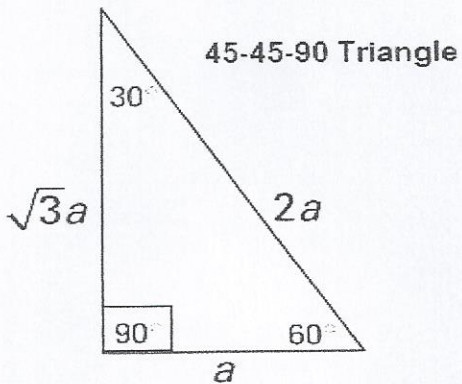
Side-Splitter Theorem

If a line is parallel to one side of a triangle and intersects the other two sides, then it divides those sides proportionally.

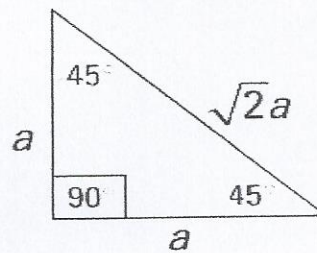
If $\overline{RS} \parallel \overline{XY}$, then $\frac{XR}{RQ} = \frac{SY}{SQ}$



Special Right triangles

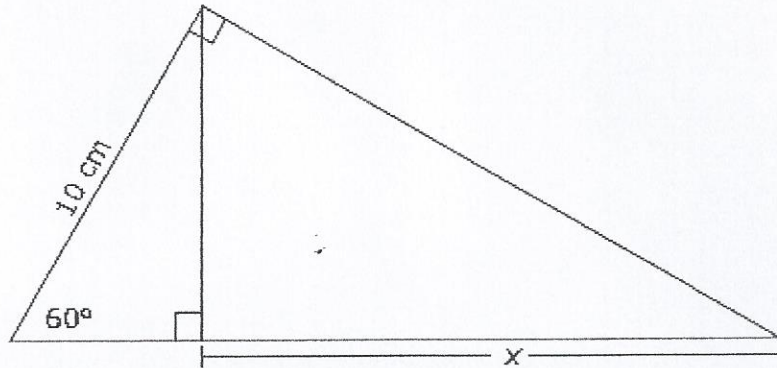


30-60-90 Triangle



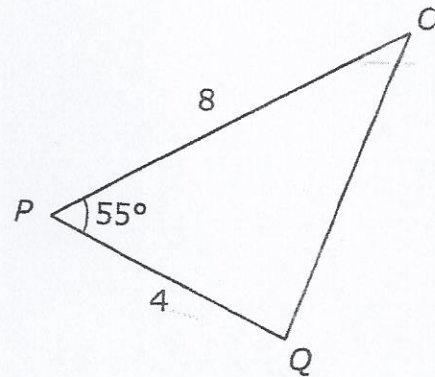
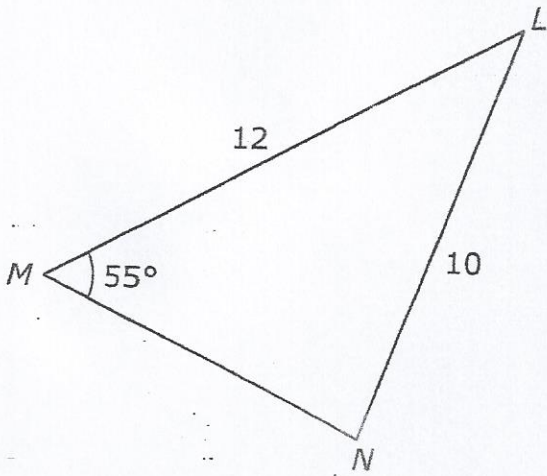
1.

What is the value of x in the triangle below?



- A $\frac{5\sqrt{3}}{2}$ cm
- B $5\sqrt{3}$ cm
- C 10 cm
- D 15 cm

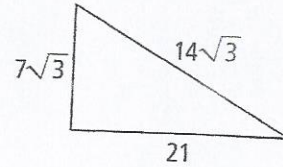
2. Triangles LMN and OPQ are shown below.



What additional information will prove the triangles are similar?

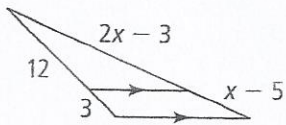
- A. $OQ = 6$
- B. $\angle LMN \cong \angle QOP$
- C. $MN = 9$
- D. $\angle NLM \cong \angle QOP$

3. What are the angle measures of the triangle?
- A. 30° , 60° , and 90° C. 60° , 60° , and 60°
 B. 45° , 45° , and 90° D. They cannot be determined

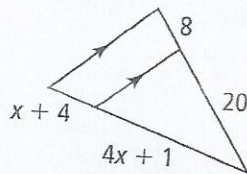


4. In the center of town there is a square park with side length 30 ft. If a person walks from one corner of the park to the opposite corner, how far does the person walk? Round your answer to the nearest foot.
- A. 21 ft B. 42 ft C. 52 ft D. 60ft

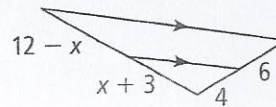
5. Solve for x



6. Solve for x

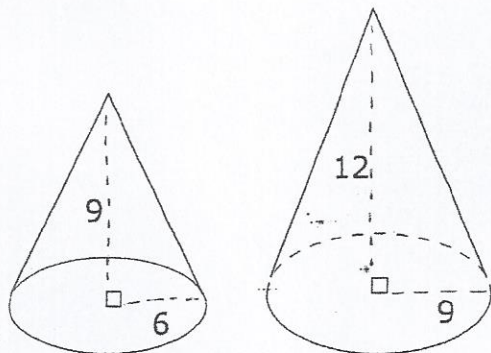


7. Solve for x

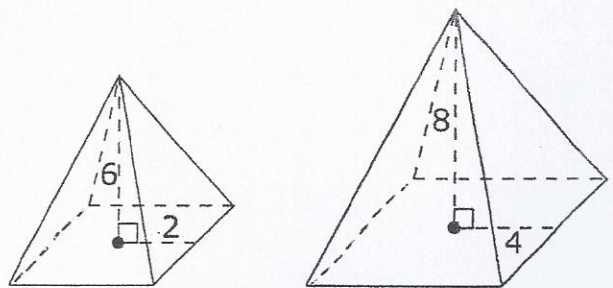


8. Which choice shows a pair of similar figures?

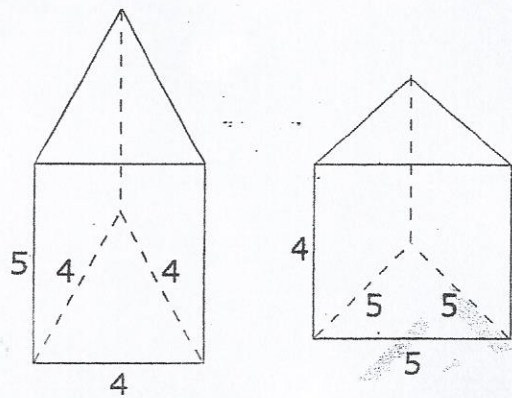
A



B



C



D

