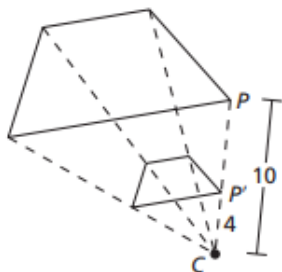


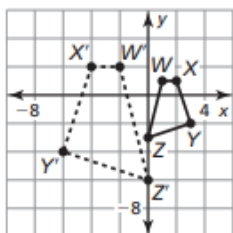
1. Find the scale factor then tell whether the dilation is a reduction or enlargement.



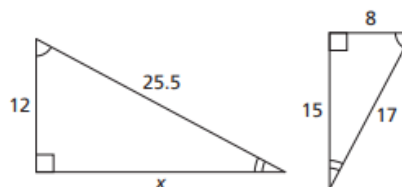
2. Find the coordinates of the image after the dilation given:

$$P(1, 2), Q(2, 2), R(4, -2), S(-1, -3); k = 2$$

3. Describe a similarity transformation that maps the black preimage onto the dashed image:



4. The triangles are similar. Find x .

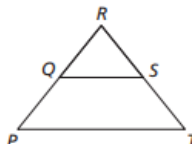


5. If figure A and B are similar. Figure A has an area of 4928 square feet and one of the side lengths is 88 feet. Figure B has an area of 77 square feet. Find the corresponding side length of figure B.

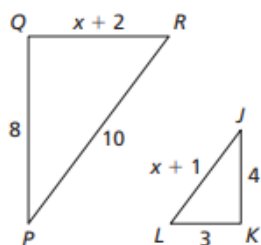
6.

Given $\frac{PR}{QR} = \frac{TR}{SR}$

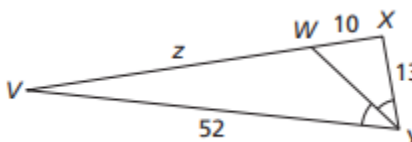
Prove: $\triangle RQS \sim \triangle RPT$



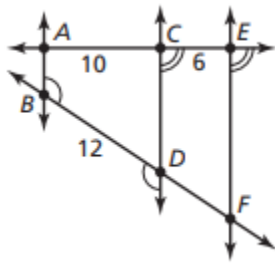
7. Find the value of x that makes $\triangle PQR \sim \triangle JKL$



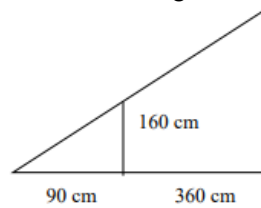
8. Find the value of z :



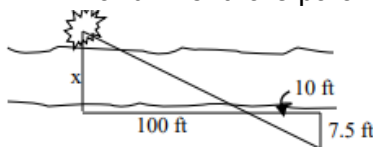
9. Find $\overline{DF}$



10. A girl 160 cm tall, stands 360 cm from a lamp post at night. Her shadow from the light is 90 cm long. How high is the lamp post?

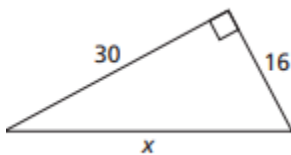


11. A bush is sighted on the other side of a canyon. Find the width of the canyon if the distances labeled "x" and "7.5 ft" are parallel.

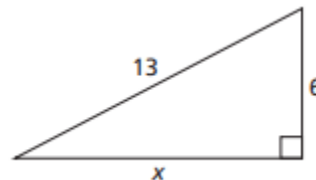


12. The foot of a ladder is 1.2 m from a fence that is 1.8 m high. The ladder touches the fence and rests against a building that is 1.8 m behind the fence. Draw a diagram, and determine the height on the building reached by the top of the ladder.

13. Find the value of x then tell whether the side lengths form a Pythagorean Triple.



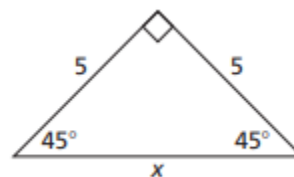
14. Find the value of x then tell whether the side lengths form a Pythagorean Triple.



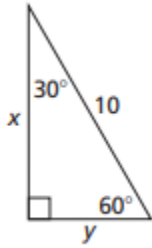
15. Verify that the lengths form a triangle then show whether it is *acute*, *right*, or *obtuse*.

5, 7, and 8

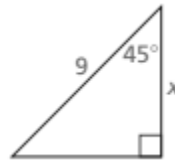
16. Find the value of x. Write your answer in simplest form.



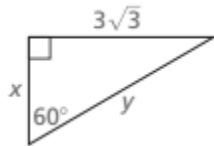
17. Find the value of the variables.
Write your answers in simplest form.



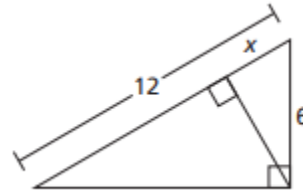
18. Find x :



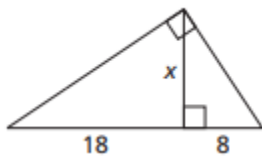
19. Find x and y :



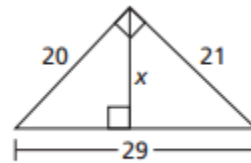
20. Find x :



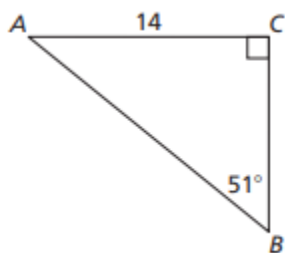
21. Find x :



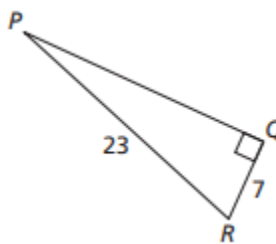
22. Find x :



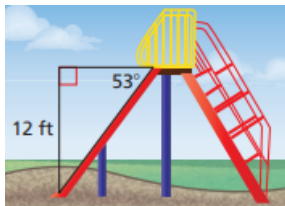
23. Solve the right triangle.



24. Solve the right triangle.



25. The top of the slide is 12 feet from the ground and has an angle of depression of 53° . What is the length of the slide?



26. A surveyor is standing 30 feet from the base of a tall building. The surveyor measures the angle of elevation from the ground to the top of the building to be 65° . Find the height h of the building to the nearest foot.