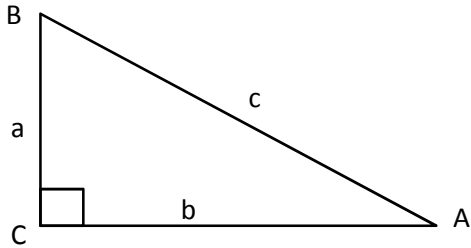


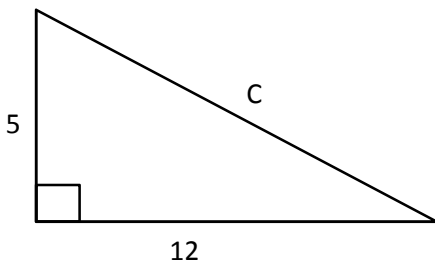
Unit 6: Triangle Geometry Review

Math 9 Principles

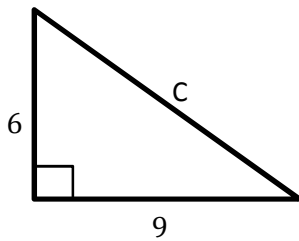
1. In the following diagram, which is considered the adjacent side to angle A?



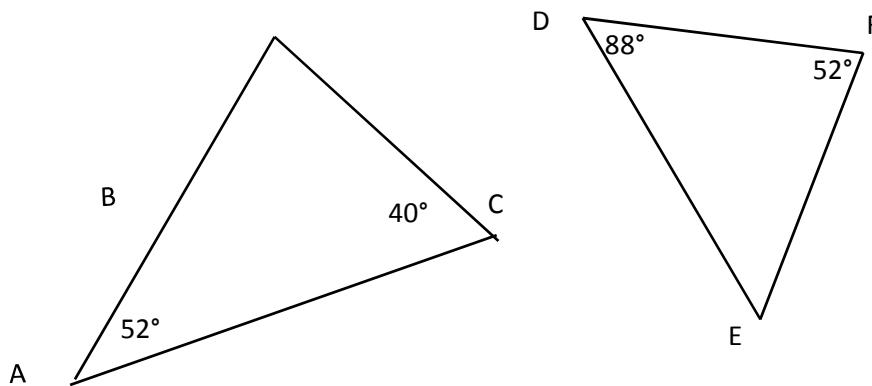
2. Using the Pythagorean Theorem, what is the length of side c?



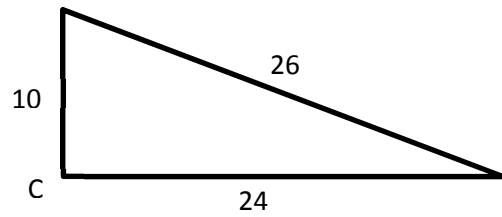
3. Using the Pythagorean Theorem, what is the length of side c?



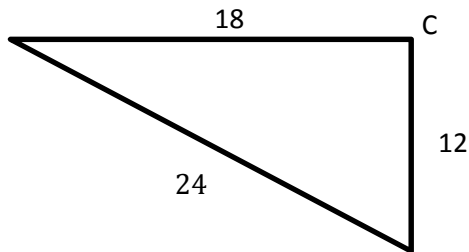
4. Given the two triangles below, write a similarity statement.



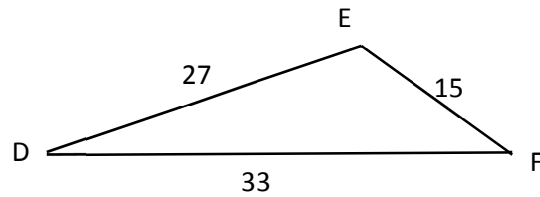
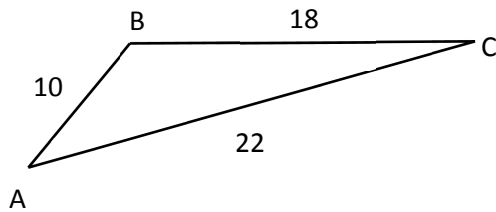
5. Is angle C equal to 90° ?



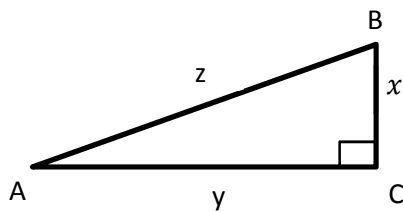
6. Is angle C equal to 90° ?



7. Given the two triangles below, write the similarity statement.



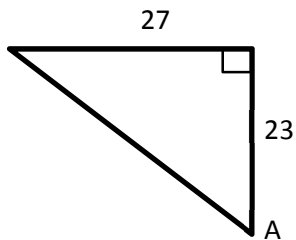
8. In the diagram below, write the tan ratio of angle A.



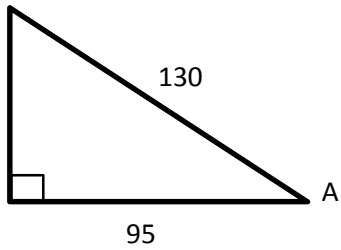
9. In the diagram in #8, write the sin ratio of angle A.

10. In the diagram in #8, write the cos ratio of angle A.

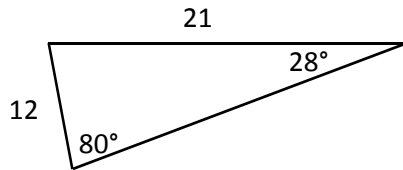
11. In the diagram below, the degree measure of angle A is approximately



12. In the diagram below, the degree measure of angle A is approximately

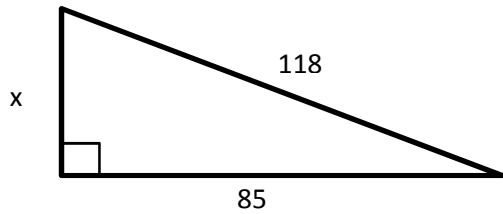


13. Calculate the area of the following triangle:

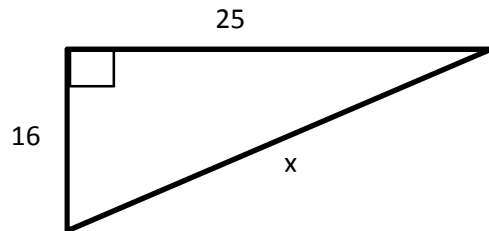


Use the Pythagorean Theorem to find the lengths. Round answer to one decimal place where necessary.

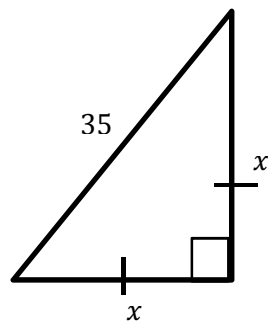
14.



15.



16.

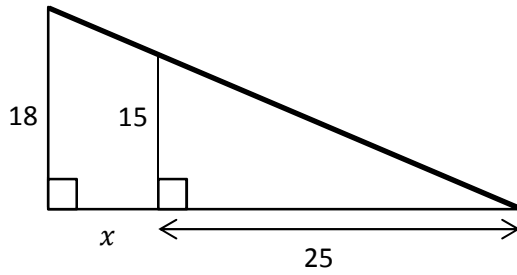


17. Find the length of the side of a square that fits inside a circle of radius 12 cm.

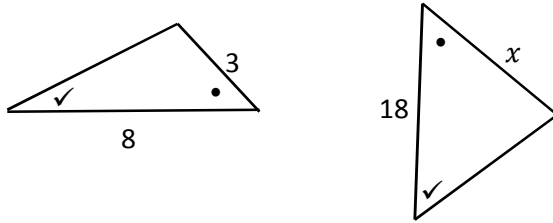
Triangle Similarity.

In #18 - #20, find the indicated side (x) by matching up corresponding sides of the similar triangles.

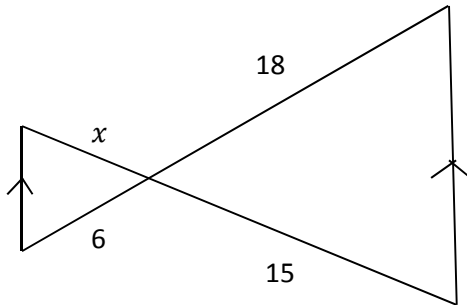
18.



19.

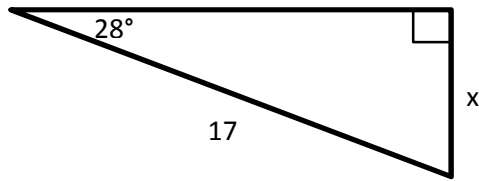


20.

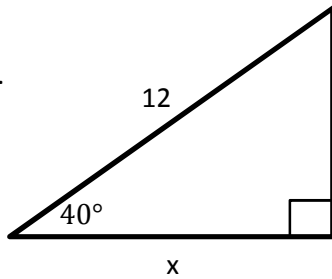


Use the appropriate trigonometric ratios to determine the side marked (x) in each of the following questions. Be sure to show all work and round answers to the nearest tenth.

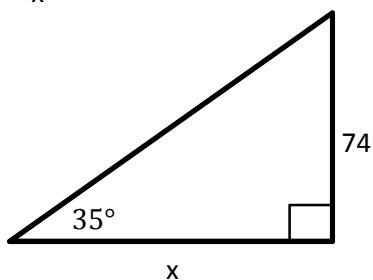
21.



22.

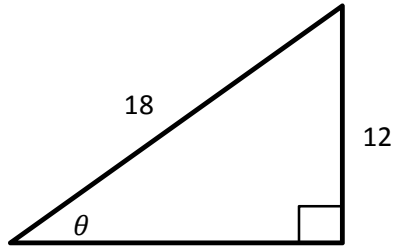


23.

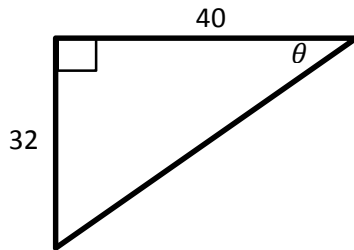


Use the appropriate trigonometric ratio to determine the angle labelled θ in each of the following diagrams. Round answers to the nearest degree.

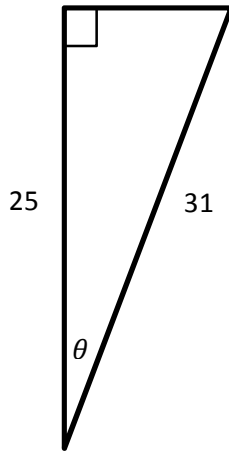
24.



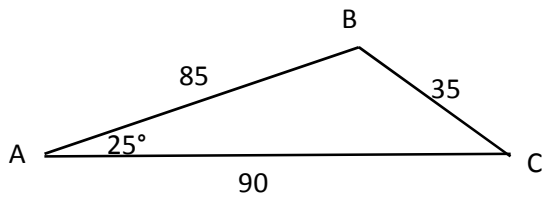
25.



26.



27. Use the area formula to determine the area of the following triangle.



28. A ladder is 6m in length and makes an angle of 25° with a house. How far from the base of the house is the ladder? Round your answer to 1 decimal place.

29. A tree casts a shadow that is 8.5m long. If the angle of inclination to the sun is 35° , how tall is the tree?
30. An airplane takes off at an angle of elevation of 12° . If it continues at this angle until it reaches an altitude of 4000m, how far has the plane travelled in ground distance? Answer to the nearest km.
31. Find the area of a parallelogram with side lengths 12 and 25, and one angle of 103° .
32. A hill is a 1550m walk to the top. What is the height of the hill, assuming it has a constant angle of inclination of 8° ?