

Online GMF Review (this is from the review for last year's midterm, please omit #4 and #5)

1. Draw each type of angle and label them. (acute, straight, obtuse, right, reflex)

2. Write the complementary angles of the following angles:

a. 15° : _____

b. 45° : _____

c. 75° : _____

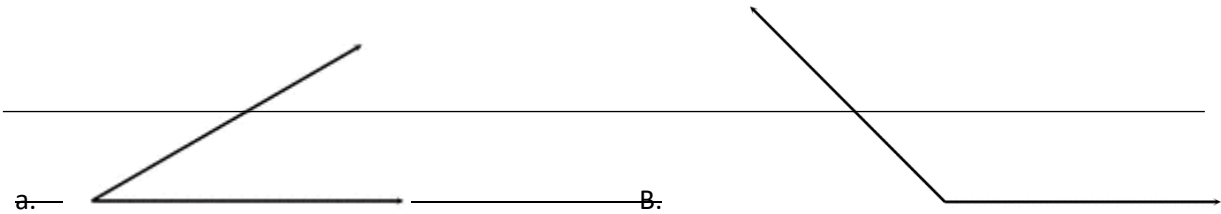
3. Write the supplementary angles of the following angles:

a. 15° : _____

b. 45° : _____

c. 75° : _____

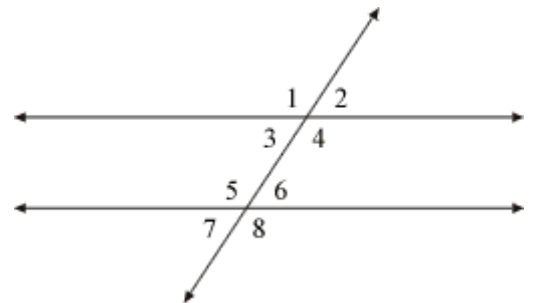
4. ~~Measures the following angles with a protractor:~~



5. ~~Bisect 4a with a protractor and 4b with a compass.~~

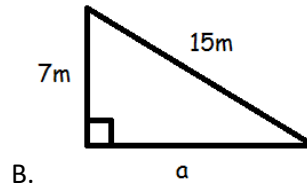
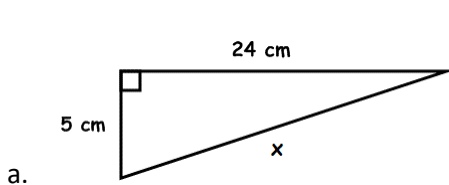
6. Use the diagram to answer the following questions:

- a. Identify 2 angles that are:
 - i. Vertically opposite: _____ and _____
 - ii. Corresponding: _____ and _____
 - iii. Interior: _____ and _____
 - iv. Exterior: _____ and _____
 - v. Alternate-interior: _____ and _____
 - vi. Alternate-exterior: _____ and _____



- b. If angle #1 is 150° what is the angle value #5? Why?
- c. If angle #7 is 58° what is the angle value #2? Why?
- d. If angle #6 is 40° what is the angle value #4? Why?
- e. If angle #5 is 115° what is the angle value #4? Why?

7. Find the value that's missing:



8. Are the following dimensions the sides of a right triangle? Justify your answers (prove).

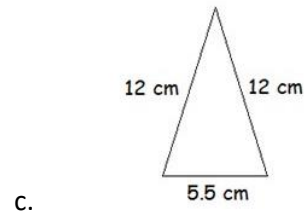
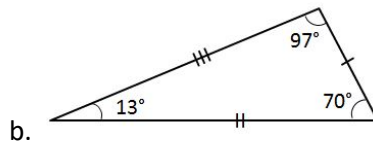
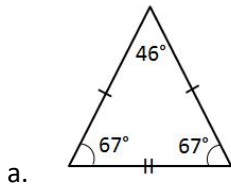
a. 7.5 cm x 10 cm x 12.5 cm

b. 10.5 m x 14 cm x 19.5 cm

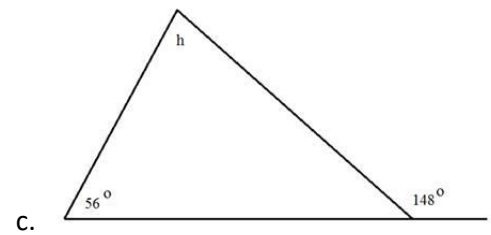
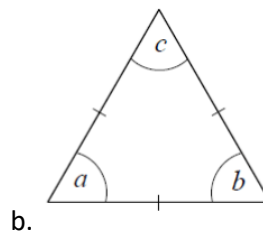
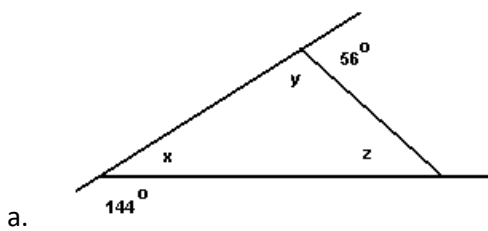
9. A ship leaves the port and sails 40 km north, then 15 km to the west. How far from the port is the ship?

10. Luke is preparing to paint the outside of his house. He has a 35 ft ladder and knows that, for safety reasons, the base of the ladder must be 8 to 11 feet from the base of the wall. What are the maximum and minimum heights that the ladder will reach on the wall?

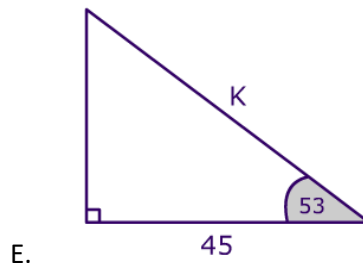
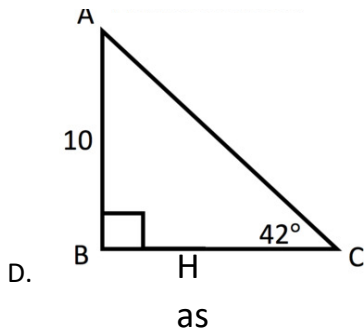
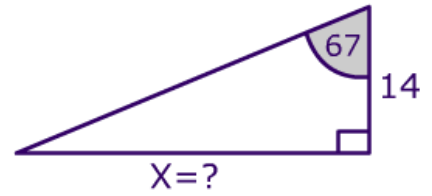
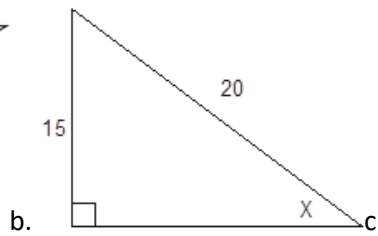
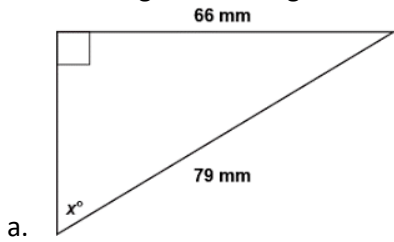
11. Classify the triangles according to their sides and angles:



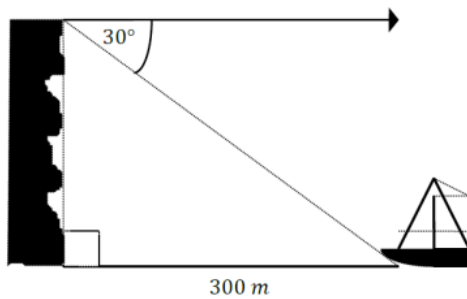
12. Find the values that are missing:



13. Find the missing sides or angles:



14. The angle of depression from the top of a cliff to a sailboat below is 30° . If the sailboat is 300 m from the base of the cliff, how high is the cliff?



15. Michael has a summer job working for a business that makes antenna towers. He must determine the length of the guy wire needed to stabilise the 30 m tall antenna tower. The guy wire must form a 65° angle with the ground. Draw a diagram, label it, and calculate the length of the required wire.

16. A builder wants to build a 10.8 m long ramp that reaches a height of 2.5m relative to the ground. Calculate the angle the ramp should make with the horizontal.