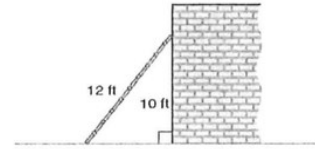


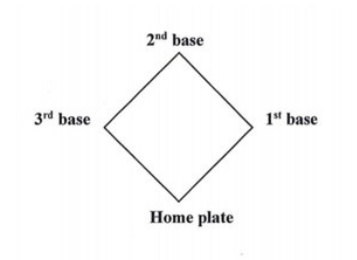
1. A 12-foot ladder is leaning against the side of a building. The top of the ladder reaches 10 feet up the side of the building. Approximately how far is the bottom of the ladder from the base of the building? Round to the nearest tenth of a foot.

- A 2 ft
- B 15.6 ft
- C 6.6 ft
- D 1.4 ft
- E 8.9 ft



2. A baseball diamond is a square with a side length of 90 feet. To the nearest foot, what is the distance between first base and third base?

- A 810 feet
- B 90 feet
- C 180 feet
- D 127 feet
- E 16,200 feet



3. A flower garden is in the shape of a right triangle. One leg of the triangle is 6 feet long and the hypotenuse is 12 feet long. What is the EXACT length of the other leg?

- A 14.6 feet
- B 10.4 feet
- C 13 feet
- D 12.8 feet
- E The square root of 108 feet

4. Which of the following sets of numbers represents a Pythagorean Triple? MARK ALL THAT APPLY.

- A 10,5,12
- B 2,4,5
- C 1,2,3
- D 14,48,50
- E 20,21,29
- F 8,4,26

5. Which of the following sets of numbers DOES NOT represent a Pythagorean Triple? MARK ALL THAT APPLY.

- A 34,16,30
- B 10,24,26
- C 19,21,23
- D 5,12,13

6. A right triangle has legs of lengths 9 cm and 12 cm. What is the EXACT length of the hypotenuse?

- A 15 cm
- B 22 cm
- C 25 cm
- D 14 cm
- E 18 cm
- F The square root of 256

7. A right triangle has legs of lengths 15" and 20". What is the EXACT length of the hypotenuse?

- A The square root of 784"
- B 32"
- C 13"
- D The square root of 625"
- E 18"
- F The square root of 256

8. A 20-ft-long wire is used to support a television antenna. The wire is connected to the antenna at 15 ft above the ground. To the nearest tenth of a foot, approximately how far away from the base of the tower will the other end of the wire be located?

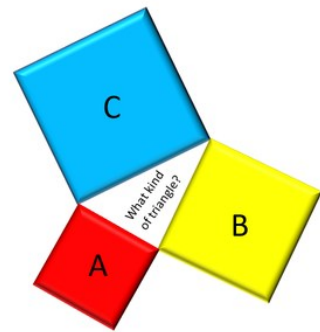
- A 13.2 ft
- B 25 ft
- C 18 ft
- D 16.5 ft
- E 19 ft
- F 22 ft

9. Gina is making a quilt in the shape of a right triangle. The measurement of the diagonal of the quilt is 36 inches long. The width of the quilt is 15 inches long. To the nearest tenth of an inch, what is the approximate length?

- A 27.3 inches
- B 32.7 inches
- C 19.6 inches
- D 29.9 inches
- E 18 inches
- F 32.6 inches

10. The image shows how three squares can be joined together to form a triangle. The areas of each square are listed below. Which areas could form a right triangle?

- A 16 units^2 , 25 units^2 , 49 units^2
- B 6.25 units^2 , 4 units^2 , 2.25 units^2
- C 12.25 units^2 , 20.25 units^2 , 16 units^2
- D 9 units^2 , 9 units^2 , 25 units^2



11. Will the lengths 4, 9, and 5 form a triangle? Explain why or why not.

12. If two sides of a triangle are 6.5 and 9.4, what are the possible lengths of the third side?

13. A triangle can be formed with side lengths of 5, 6, and 9.

- A True
- B False

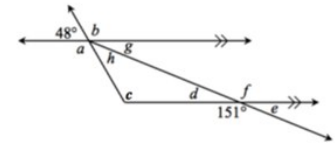
14. A triangle can be formed with side lengths of 4, 8, and 12.

- A True
- B False

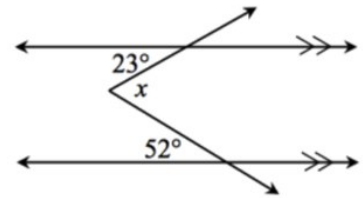
15. A triangle can be formed with side lengths of 7, 8, and 17.

- A True
- B False

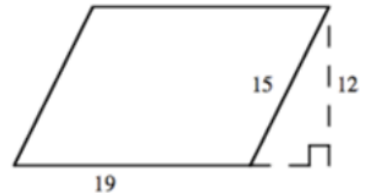
16. Examine the diagram below. Then use the information provided in the diagram to find the measures of angles a through g. For each angle, name the angle relationship that helped justify your conclusion.



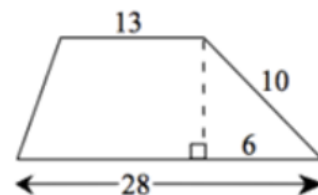
17. Calculate the value of x.



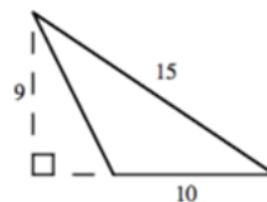
18. Calculate the area of the figure. State your answer in terms of *units squared* or *square units*.



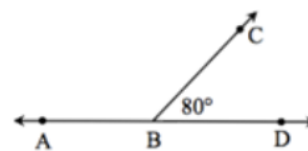
19. Calculate the area of the figure. State your answer in terms of *units squared* or *square units*.



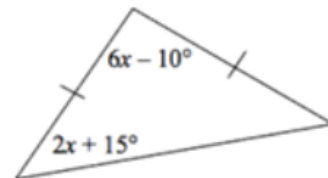
20. Calculate the area of the figure. State your answer in terms of *units squared* or *square units*.



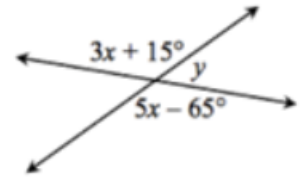
21. What is the measure of Angle ABC AND what angle relationship did you use to find the measure?



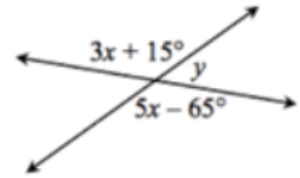
22. What is the value of x in the triangle AND what equation can you use to help you determine that value?



23. What is the value of x in the diagram AND what equation can you use to help you determine that value?



24. What is the value of y in the diagram AND what equation can you use to help you determine that value?



25. What is the value of x in the triangle AND explain the angle relationships that helped you find determine the angle measurement?

