COLOR BY CODES THE PYTHAGOREAN THEOREM AND ITS CONVERSE

13

127.3

8

10

40

8.2

13   15

14.4

4.4

12

84

40

6.7

12
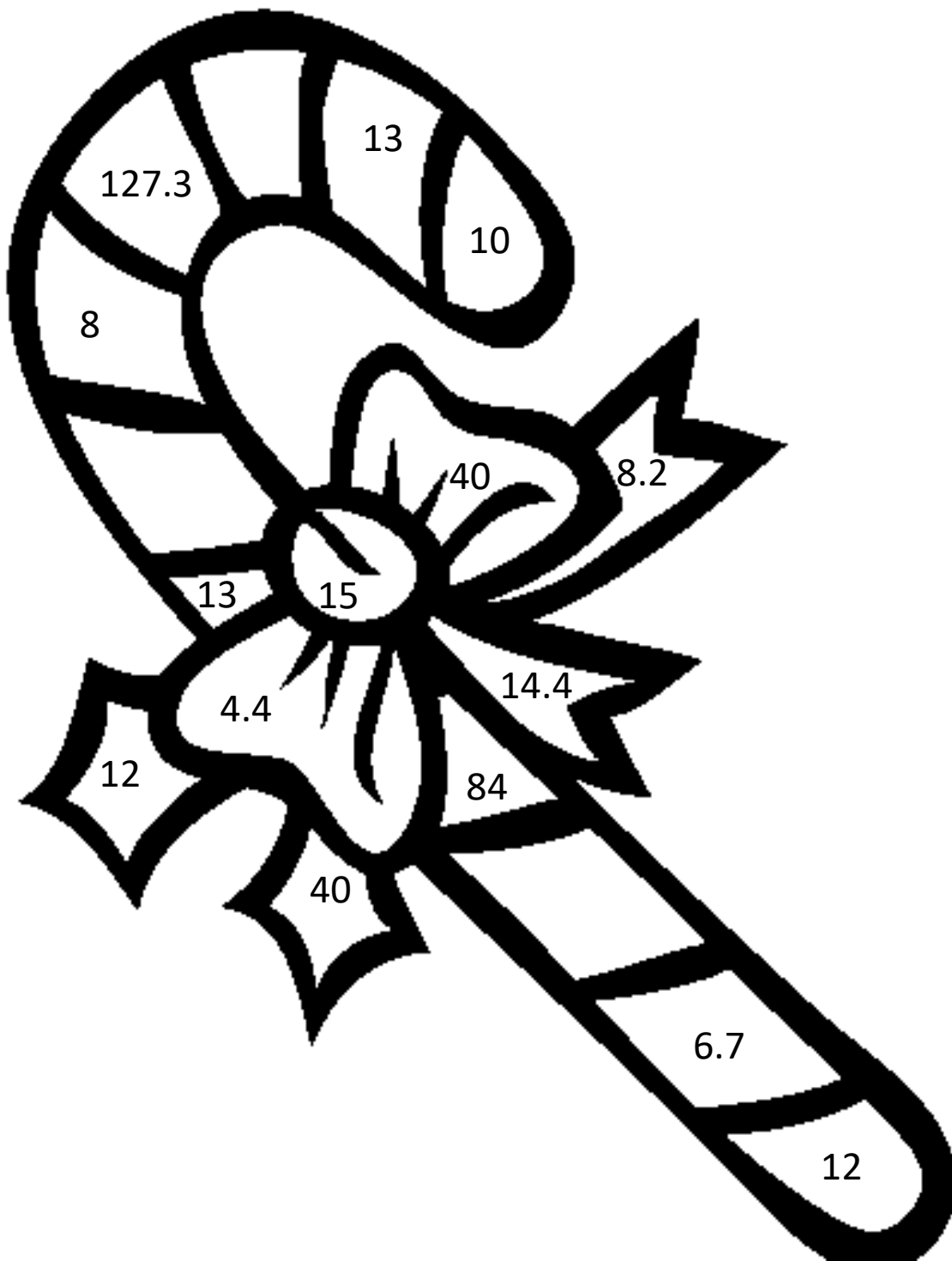
Answer the questions. Color the "Candy Cane" according to your answers.

1. If c is the hypotenuse of the right triangle ABC with sides a, b, c and a = 12, b = 5, then
   c = _____. **(GREEN)**

2. If c is the hypotenuse of the right triangle ABC with sides a, b, c and c = 25, b = 20, then
   a = _____. **(BLUE)**

3. If c is the hypotenuse of the right triangle ABC with sides a, b, c and a = 15, c = 17, then
   b = _____. **(GREEN)**

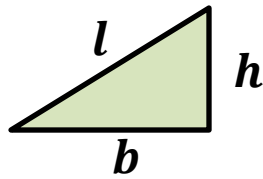4. What is the value of x in the figure given below? Round the answer to the nearest tenth. **(RED)**

6cm

x

3cm
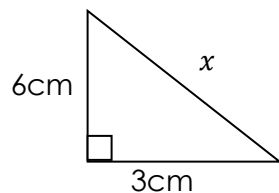
5. What is the value of y in the figure given below? Round the answer to the nearest tenth. **(YELLOW)**

6.9m

5.3m

y
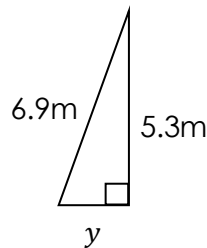
6. Find a 3rd number z such that 9, 41 and z make a right triangle. **(YELLOW)**

7. Find a 3rd number b such that 13, 85 and b make a right triangle. **(GREEN)**

8. The slide at a playground has a height of 6 feet. The base of the slide measured on the ground is 8 feet. What is the length of the sliding board? **(RED)**


l

h

b
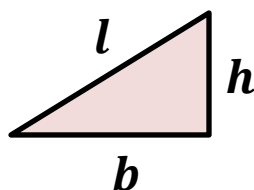
9. The bottom of a 13-foot straight ladder is set into the ground 5 feet away from a wall. When the top of the ladder is leaned against the wall, what is the distance above the ground it will reach? **(GREEN)**

10. What is the value of f in the figure given below? Round the answer to the nearest tenth. **(GREEN)**
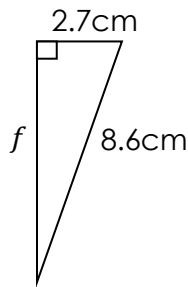
11. In the Old West, settlers made tents out of a piece of cloth thrown over a clothesline and then secured to the ground with stakes forming an isosceles triangle. How long would the cloth have to be so that the opening of the tent was 6 feet high and 8 feet wide? **(YELLOW)**
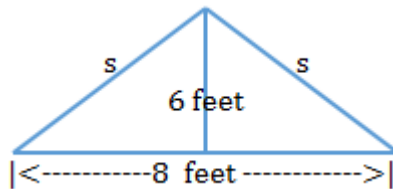
12. A baseball diamond is a square with sides of 90 feet. What is the shortest distance, to the *nearest tenth* of a foot, between first base and third base? **(RED)**