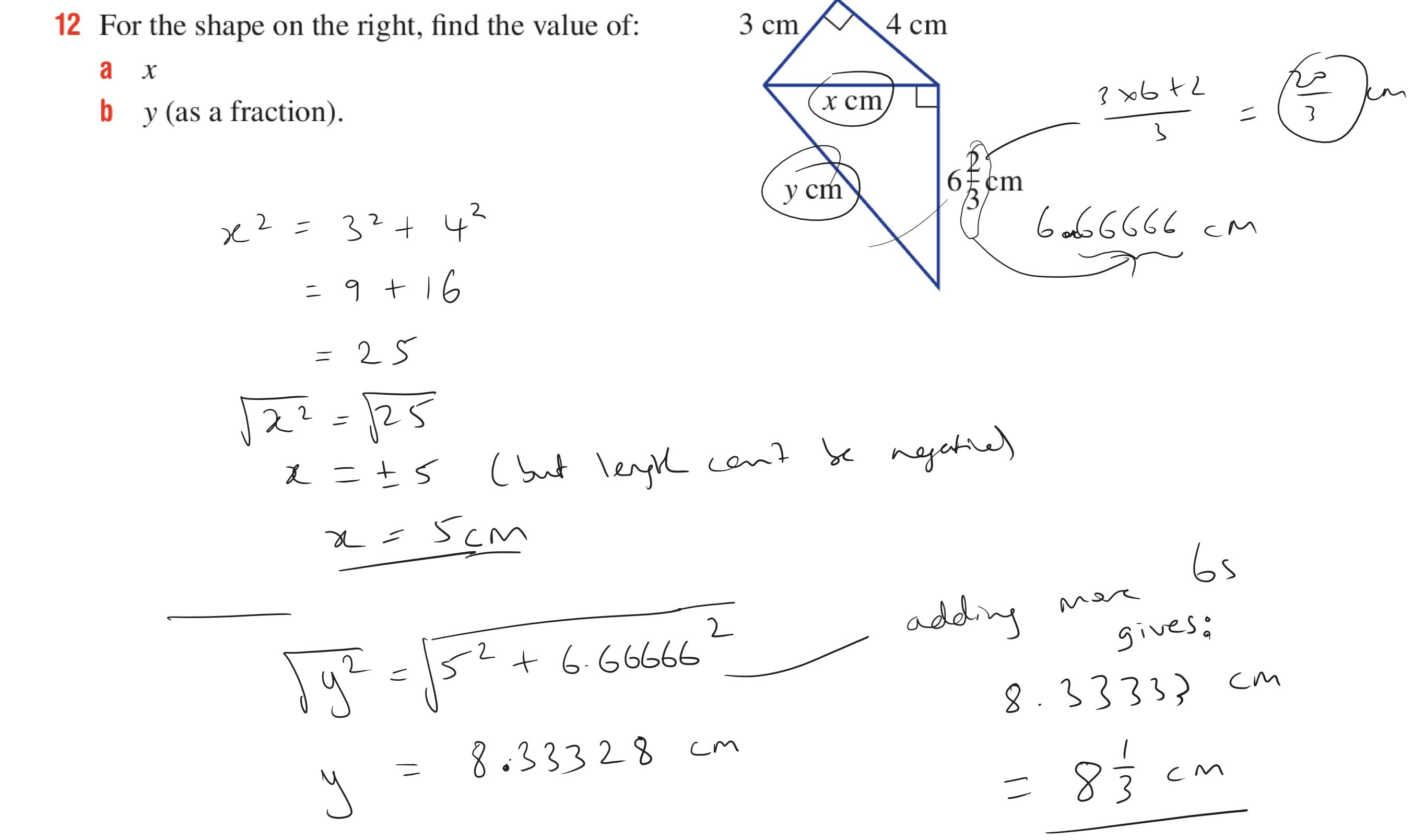




2.1 m

Find the length of the longest rod that will fit inside a cylinder of height
2.1 m and circular end surface of diameter 1.2 m. Give your answer correct to one decimal place.

 $\chi^2 = 2(2 + 1.2)$ Z= JZ-12+ N.22 = 2.4186773 m= 2.4 m V





CHALLENGE: extend this diagram further by making the student find other values through using the recently found 'y' value of 8 1/3...

- 13 One way to check whether a four-sided figure is a rectangle is to ensure that both its diagonals are the same length. What should the length of the diagonals be if a rectangle has side lengths 3 m and 5 m? Answer to two decimal places.
- 14 We know that if the triangle has a right angle, then  $c^2 = a^2 + b^2$ . The converse of this is that if  $c^2 = a^2 + b^2$  then the triangle must have a right angle. Test whether  $c^2 = a^2 + b^2$  to see if these triangles have a right angle. They may not be drawn to scale.

