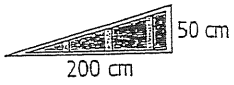
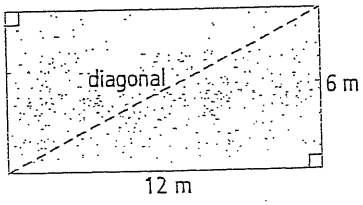
Applying the Pythagorean Relationship

Apply

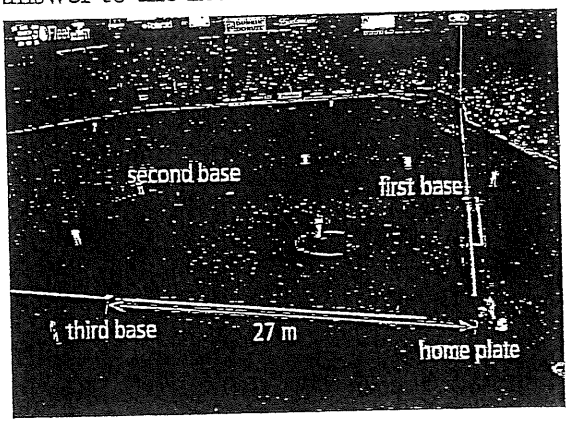
3. The side view of a ramp at a grocery store is in the shape of a right triangle. Determine the length of the ramp, to the nearest centimetre.



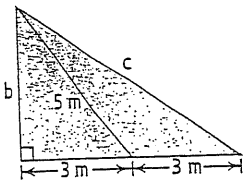
9. Tina wants to construct a path along the diagonal of her yard. What length will the path be? Express your answer to the nearest tenth of a metre.



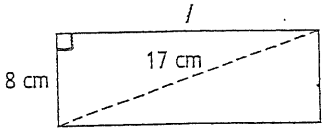
10. What is the minimum distance the player at third base has to throw the ball to get the runner out at first base? Express your answer to the nearest tenth of a metre.



14. What are the lengths of b and c? Write your answer to the nearest tenth of a metre where appropriate.



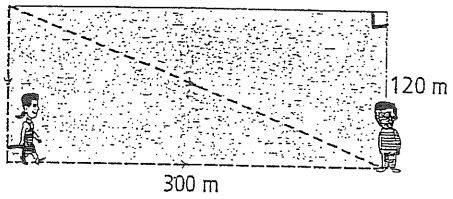
6. The width of a rectangle is 8 cm, and its diagonal is 17 cm.



a) Calculate the length of the rectangle. Show your work.

b) Calculate the area of the rectangle. Show your work.

3. Walter walks across a rectangular field in a diagonal line. Maria walks around two sides of the field. They meet at the opposite corner.

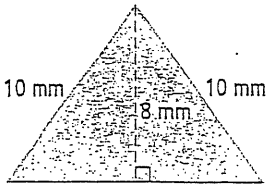


a) How far did Maria walk?

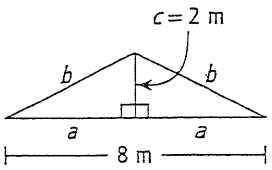
b) How far did Walter walk? Express your answer to the nearest metre.

c) Who walked farther? By how much?

13. Determine the length of the base of the large triangle. Express your answer to the nearest tenth of a millimetre.



7. A triangle is made up of two smaller congruent right triangles.



a) Find the length of the hypotenuse for the right triangles, to the nearest tenth of a metre. Show your work.

b) Calculate the perimeter of the large triangle, to the nearest tenth of a metre. Show your work.

12. Sarah has a vegetable garden in the shape of a right triangle. She wants to put fencing all around it to keep the rabbits away.

a) What total length of fencing does she need? Give your answer to the nearest hundredth of a metre.

b) If fencing costs $2/m, what will be the total cost of the fencing?