

# Applications of Trigonometry

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## Example 1

A lumberjack wants to estimate the height of a tree. She begins by measuring the angle of elevation to the top of the tree to  $38^\circ$ . She then walks 10m closer to the tree and measures the angle of elevation to be  $49^\circ$ . Find the height of the tree.

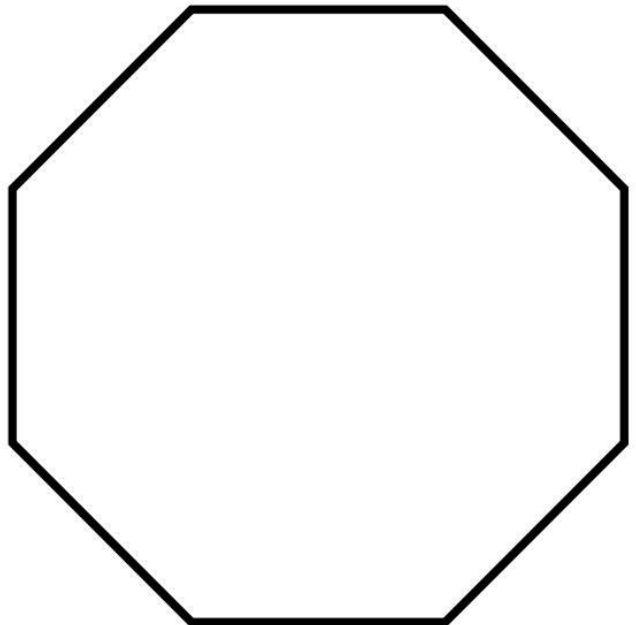
## Example 2

A **regular octagon** has all side lengths equal to 15 cm. Find the length of the apothem.

**NOTES:**

**Regular polygon** – has all sides and angles equal.

**Apothem** – the distance from the centre of a regular polygon to one of the vertices.



MPM2D

**Text page 367 #6**

**Page 357 #11, 13**

**Page 381 #2**

**Page 387 – 389 #23, 29**

**Page 397 #53, 54**