

# THIRUVANANTHAPURAM EDUCATIONAL DISTRICT

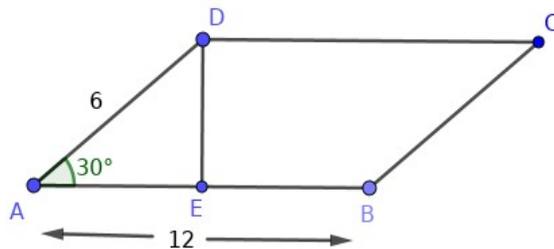
WS 2  
MT(104)E

## MATHEMATICS WORK SHEET 2021-22 STANDARD X

### TRIGONOMETRY

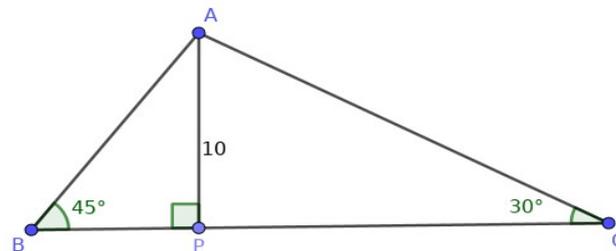


1. In the figure ABCD is a parallelogram  $\angle A = 30^\circ$ ,  $AB = 12$  cm,  $AD = 6$  cm



- (a) Find the length of DE  
(b) Find the area of the parallelogram ABCD

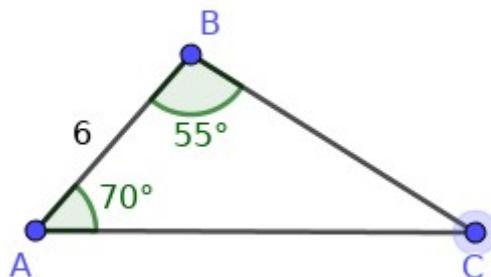
2.



In triangle ABC, the length of AP is 10cm

- (a) What is the length of BP?  
(b) What is the length of PC?  
(c) Calculate the length of BC

3.



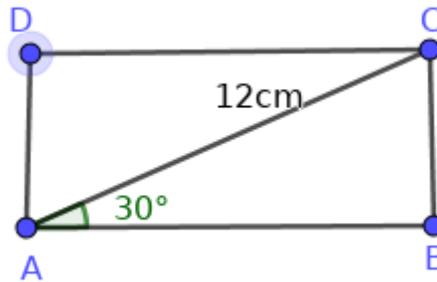
In triangle ABC length of AB=6cm,  $\angle A=70^\circ$ ,  $\angle B=55^\circ$

(a) Find  $\angle C$

(b) Find AC

(c) Find the area of triangle ABC ( $\sin 70^\circ = 0.93$ )

4. The diagonal of a rectangle is 12cm and it makes an angle  $30^\circ$  with one side. Find the perimeter and area of the rectangle.



5. Angle measures of a triangle are  $30^\circ, 70^\circ, 80^\circ$ . If the length of its smallest side is 10cm. Find the length of its other sides.
6. What is the circum radius of an equilateral triangle of side 10cm?
7. A man standing at the edge of a river sees the top of a tree at an elevation of  $60^\circ$ . Stepping 20 metres back he sees it at an elevation of  $30^\circ$ . Draw a rough figure and find the width of the river