

WANDOOR GANITHAM - S S L C UNIT TEST 2021

11.5BE

TRIGNOMETRY

Total Score : 25

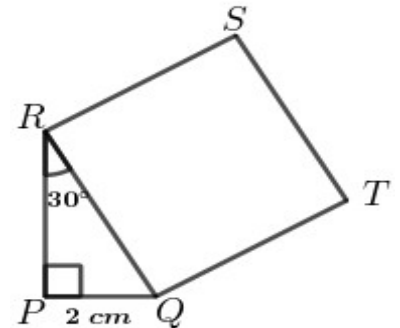
Time : 45minutes

(2 scores each for questions 1 to 3)

1. In the figure $\angle P=90^\circ, \angle PRQ=30^\circ, PQ=2\text{ cm}$.

a) What is the measure of $\angle PQR$?

b) What is the length of the diagonal of the square $QRST$?

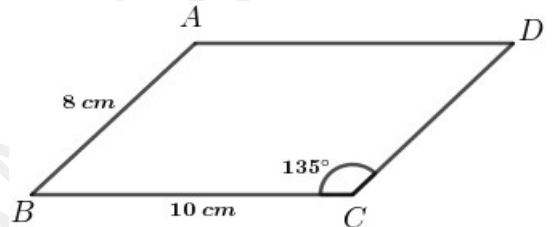


2. In the parallelogram $ABCD$, $AB=8\text{ cm}, BC=10\text{ cm}$

$\angle C=135^\circ$

a) What is the perpendicular distance from A to the side BC ?

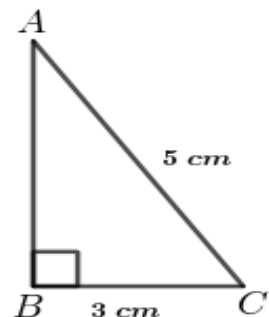
b) What is the area of the parallelogram ?



3. In the triangle ABC , $\angle B=90^\circ, AC=5\text{ cm}, BC=3\text{ cm}$

a) Find $\sin A$?

b) Find $\tan A$?



(3 scores each for questions 4 to 5)

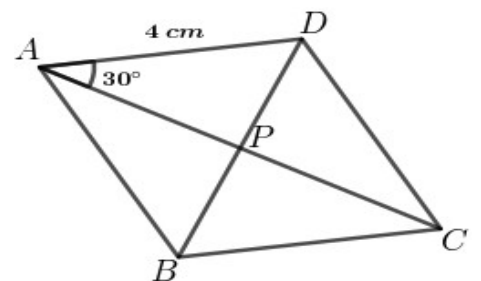
4. In the figure diagonals of the rhombus $ABCD$ intersect at P .

$AD=4\text{ cm}$, $\angle PAD=30^\circ$.

a) What is the measure of $\angle APD$?

b) What is the length of PD ?

c) What is the length of the diagonal AC ?

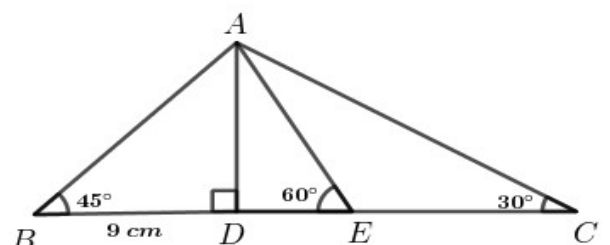


5. In the figure $\angle ABD=45^\circ, \angle ADE=90^\circ$, $\angle AED=60^\circ, \angle ACE=30^\circ$, $BD=9\text{ cm}$

a) What is the length of AD ?

b) What is the length of CD ?

c) What is the length of CE ?



(4 scores each for questions 6 to 7)

6. Manu and Nandu stand on either side of a building . Manu sees the top of the building at an elevation of 45° and Nandu sees it an elevation of 30° . The distance between the children is 40 metres .The building and the children are on the same line .

a) Draw a rough figure based on the given details ?

b) What is the height of the building ?

7. A man standing away from the bottom of a tower sees its top at an angle of elevation of 60° . Standing back by 100 metres , he sees it an angle of elevation of 30° .

a) Draw a rough figure based on the given details ?

b) What is the height of the tower ?

(Question 8 carries 5 scores)

8) A man standing on the top of a building sees the top of a tower at an elevation of 45° and its base at a depression of 60° . The distance between the building and the tower is 50 metres.

a) Draw a rough figure based on the given details ?

b) What is the height of the building ?

c) What is the height of the tower ?

d) What is the ratio of the sides of of a triangle having angles 30° , 45° and 105° ?