WORKSHEET
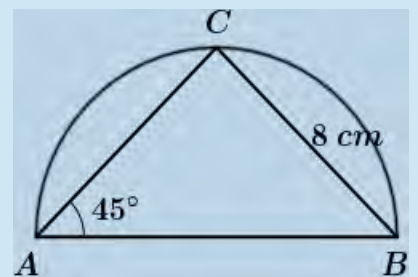
1. *The sides of the triangles with angles 45^0 , 45^0 , 90^0 are given below in the table .*

   Fill in the blanks

	Side opposite to 45^0	Side opposite to 45^0	Side opposite to 90^0
	6 cm	-------	-------
	-------	7 cm	-------
	-------	-------	$10\sqrt{2}$ cm
	$\dfrac{5}{\sqrt{2}}$ cm	-------	-------
	-------	-------	9 cm

2. *In the figure   AB is the diameter of the semicircle . BC = 8 cm*

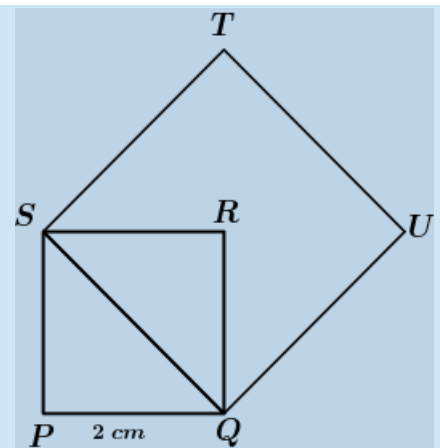   a) *What is the measure of < ACB   ?*

   b) *What is the measure of < ABC   ?*

   c) *What is the length of AB   ?*

   d) *What is the perimeter of the triangle ABC ?*

3. *In the figure   PQRS are QSTU are two squares .*

   PQ = 2 cm

   a) *What is the measure of < SPQ   ?*

   b) *What is the measure of < PSQ   ?*

   c) *What is the length of QS   ?*
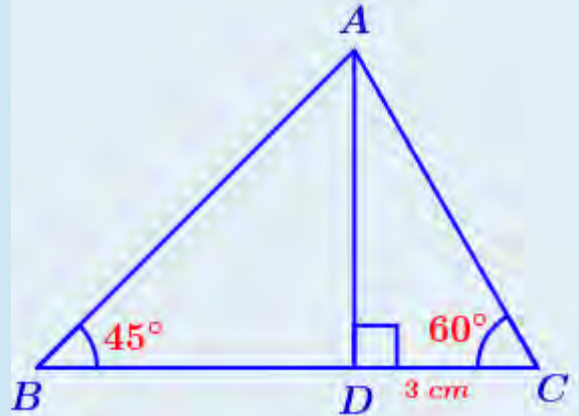
   d) *What is the perimeter of the square   QSTU   ?*

WORKSHEET

(1) *In the figure* < B = 45⁰ , < C = 60 ⁰ , < D = 90 ⁰

a) *What is the measure of* < DAC ?

b) *What is the length of* AC ?

c) *What is the length of* AD ?

d) *What is the length of* AB ?

e) *What is the measure of* < BAC ?

f) *What is the ratio of the sides of the triangle of angles* 45 ˚ , 60 ˚ , 75 ˚ ?

(2) *In the figure* ABCD *is a rhombus* .*Its diagonals*

intersect at P . < ABP = 30 ⁰

a) *What is the measure of* < APB ?

b) *What is the length of* BP ?

c) *What is the length of* AB ?

d) *What is the perimeter of* ABCD ?

e) *What is the area of* ABCD ?
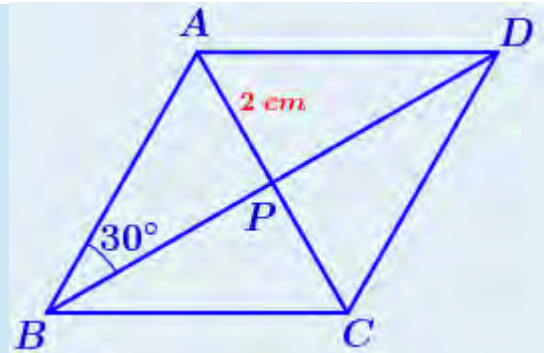
(3) *In the figure* O *is the centre of the circle* . < AOC = 60 ⁰

Radius of the circle is 4 cm .

a) *What is the measure of* < ABC ?

b) *What is the measure of* < ACB ?

c) *What is the length of* AC ?
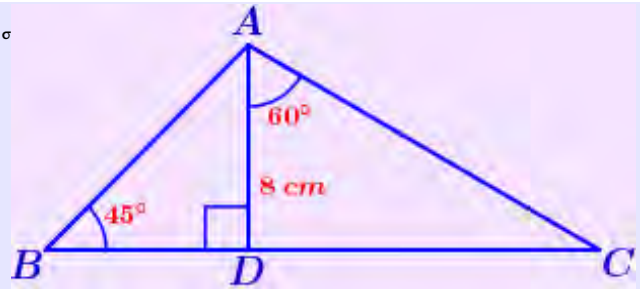
d) *What is the perimeter of the triangle* ABC ?

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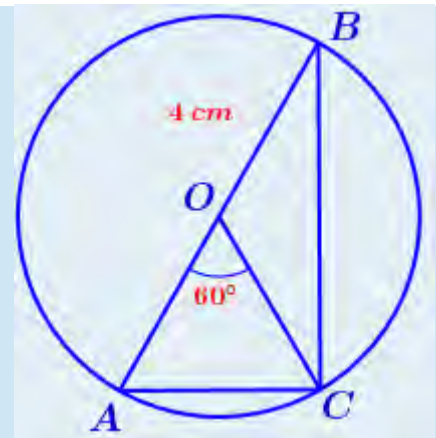
WORKSHEET

(1)In the figure < B = 45 °,<D =90 °,< DAC = 60 °
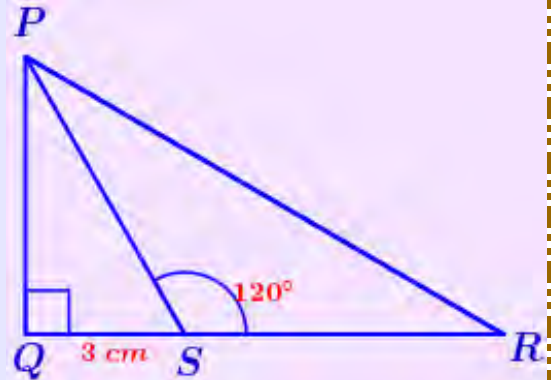
AD = 8 *cm*

a) *What is the measure of < BAD ?*

b) *What is the length of BD ?*

c) *What is the measure of < ACD ?*

d) *What is the length of DC ?*

e) *What is the area of the triangle ABC   ?*

(2) *In the figure QS = 3 cm   , < Q =90 °,*

< PSR = 120 ° , PS = SR

a) *What is the measure of < PSQ ?*

b) *What is the length of   PS   ?*

c) *What is the length of   PQ   ?*

d)*What is the length of   PR   ?*

e) *What is perimeter of the triangle   PQR   ?*

(3) *In the figure AC = 12 cm ,< A =60⁰ , < B = 45⁰*

CD *is perpendicular to AB*

a) *What is the measure of < ACB   ?*

b)*What is the length of CD   ?*

c) *What is the area of the triangle ABC ?*

d) *If the ratio of the angles of a triangle 3 : 4 : 5 , what is the ratio of the sides of this*
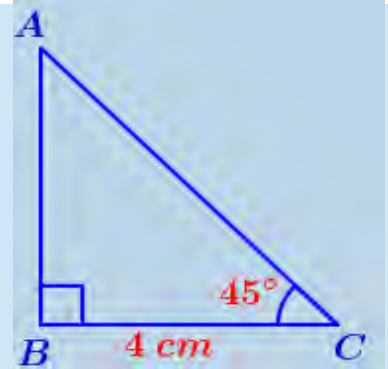
triangle ?

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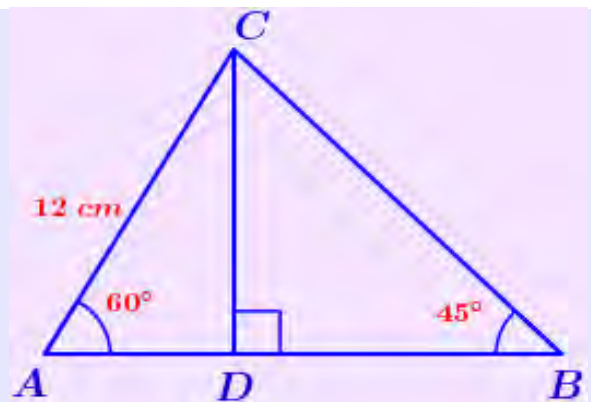
WORKSHEET

(1) *In the figure* $< B = 90^0$, $< C = 45^0$, *BC = 4 cm*

  a) *What is the measure of* $< A$?

  b) *What is the length of AB* ?

  c) *What is the length of AC* ?

  d) *Find* sin 45 ° *using the sides of this triangle* ?

  e) *Find* cos 45 ° *using the sides of this triangle?*

(2) *In the figure* $< Q = 90^0$, $< P = 30^0$, *QR = 3 cm*

  a) *What is the measure of* $< R$?

  b) *What is the length of PQ* ?

  c) *What is the length of PR* ?

  d) *Find* sin 30 ° *using the sides of this triangle* ?

  e) *Find* cos 30 ° *using the sides of this triangle* ?

  f) *Find* sin 60 ° *using the sides of this triangle* ?

  g) *Find* cos 60 ° *using the sides of this triangle* ?
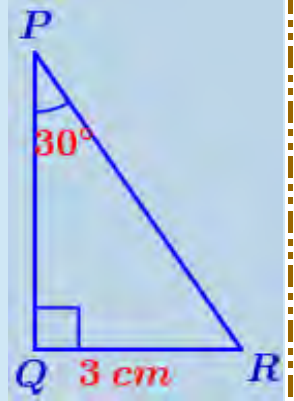
(3) *Complete the table given below according to the table given in the page 124 of the text*

  book .

Angle	20^0	70^0	50^0	40^0	35^0	55^0
sin						
cos						

WORKSHEET

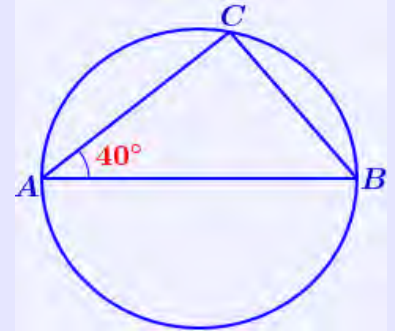**(1)** In the figure AB is the diameter of the circle .

Radius of the circle is 5 cm and $< A = 40^0$

a) What is the measure of $< C$?

b) What is the length of BC ?

(*hint* : $\sin 40^0 = 0.64$)

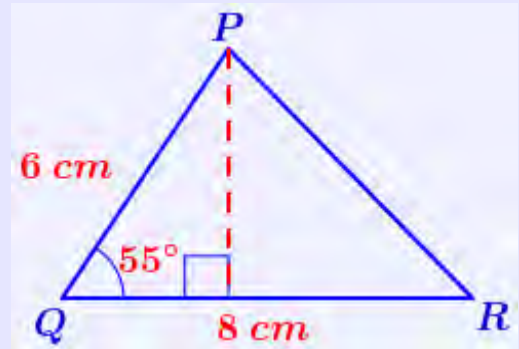**(2)** In triangle PQR , PQ = 6 *cm* , QR = 8 *cm*

and $< Q = 55^0$

a) What is the length of the perpendicular drawn

from P to its opposite side ?

b) What is the area of the triangle PQR ?

(*hint* : $\sin 55^0 = 0.82$)
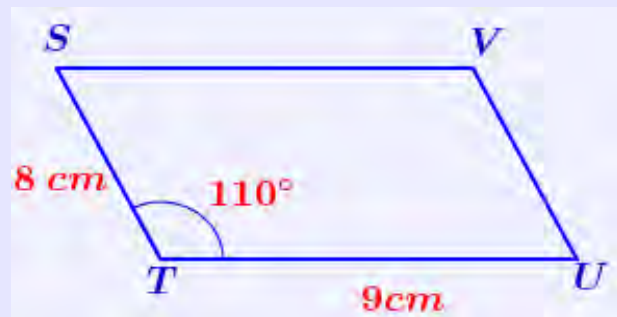
(3) In the figure STUV is a parallelogram .

ST = 8 cm , TU = 9 cm and $< T = 110^0$

a) What is the measure of $< U$?

b) What is the distance between the parallel

sides SV and TU ?

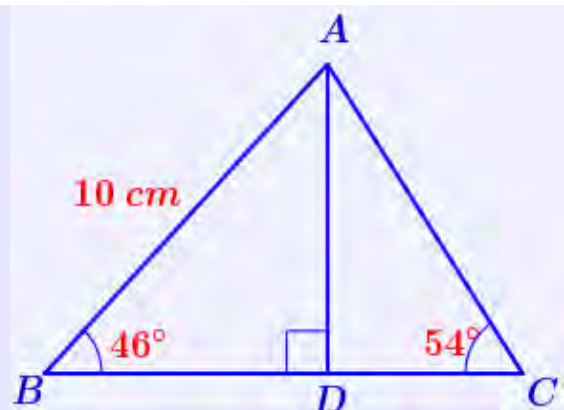c) What is the area of the parallelogram ?

(*hint* : $\sin 70^0 = 0.94$)

(4) In the figure AB = 10 cm , $< B = 46^0$

$< C = 54^0$, $< ADB = 90^0$

a) What is the length of AD ?

b) What is the length of AC ?

(*hint* : $\sin 46^0 = 0.72$, $\sin 54^0 = 0.81$)

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WORKSHEET

(1) *In the figure EFGH is a rectangle . EG = 20 cm*

   < EGF = 26 ^{0}

  a) *What is the measure of < EFG   ?*

  b) *What is the length of EF   ?*

  c) *What is the length of GF   ?*   (*hint :* sin 26 ^{0} = 0.44   , cos 26 ^{0} = 0.90)
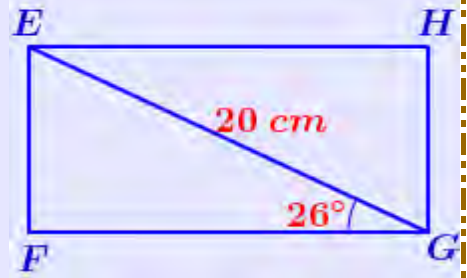
(2) *In the figure AC is the diameter   . AC = 10 cm ,*

   < BAC = 40 $^\circ$

  a) *What is the measure of < ABC ?*

  b) *What is the length of BC   ?*

  c) *What is the length of AB   ?*

               (*hint :*   sin 40 ^{0} = 0.64   , cos 40 ^{0} = 0.76)
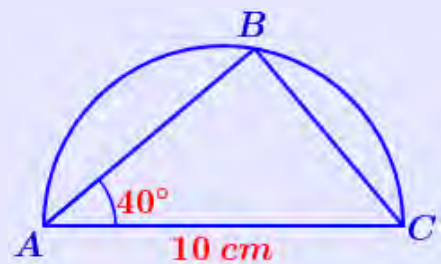
(3) *In the figure QR = 8 cm , < Q = 56 $^\circ$, < R = 68 $^\circ$*
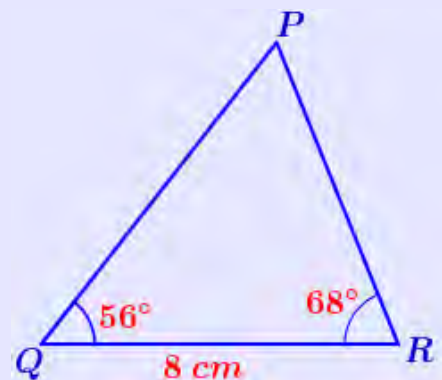
  a) *What is the measure of < P   ?*

  b) *What is the length of PR ?*

  c) *What is the perpendicular distance from P to QR ?*

  d) *What is the area of the triangle   PQR   ?*

               (*hint :*   sin 56 ^{0} = 0. 83   , sin 68 ^{0} = 0.93)

(4) *In the figure ABCD is a rhombus and its diagonals*

   intersect at P . AB = 10 cm and < ABD= 38 ^{0}

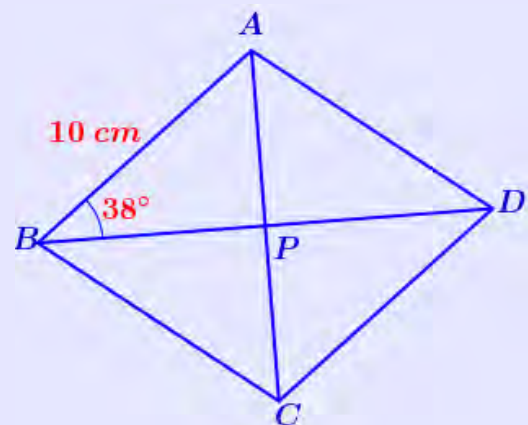 **a)** *What is the measure of   < APB   ?*

  b) *What is the length of AP ?*

  c) *What is the length of BD ?*

  d) *What is the area of the rhombus   ?*

               (*hint :*   sin 38 $^\circ$ = 0.62   , cos 38 $^\circ$ = 0.79)

WORKSHEET

(1) In the figure O is the centre of the circle .

OB = 5 cm , < OAB = 50 ^{0}

a) What is the measure of < OBA ?

b) What is the measure of < AOB ?

c) What is the length of the chord AB ?

(hint : sin 50 ^{0} = 0.76 , sin 40 ^{0} = 0.64 , sin 80 ^{0} = 0.98)
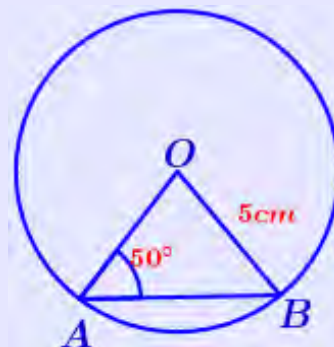
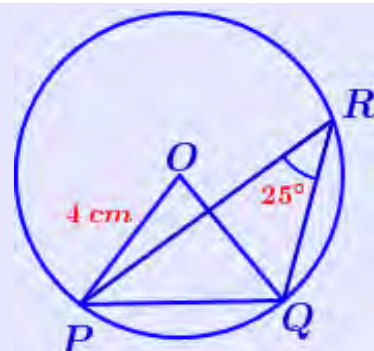**(2) In the figure O is the centre of the circle .**

OP = 4 cm , < PRQ = 25 ^{0}

a) What is the measure of < POQ ?

b) What is the length of the chord PQ ?

(hint : sin 25 ^{0} = 0.42 , sin 50 ^{0} = 0.76)

(3) In the figure O is the centre of the circle .

LN = 12 cm , < OMN = 35 ^{0}

a) What is the measure of < ONM ?

b) What is the measure of < LOM ?

c) What is the length of the chord LM ?

(hint : sin 35 ^{0} = 0.57 , sin 70 ^{0} = 0.94)

(4) In the figure O is the centre of the circle .

Diameter of the circle is 14 cm , < ACB = 110 ^{0}

a) What is the measure of < ADB ?

b) What is the measure of < AOB ?

c) What is the length of the chord AB ?

(hint : sin 70 ^{0} = 0.94 , sin 35 ^{0} = 0.57)

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