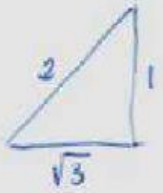
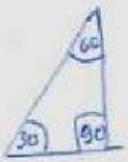
Sebelum menyelsaikan soal-soal yang ibu b!erikan, silahkan diperhatikan penjelasan berikut. Jangan lupa di catat di buku ya…!

Sudut 30° - 60° - 90°

Perbandingan sudutnya $1 : \sqrt{3} : 2$



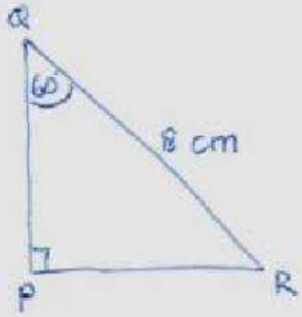


- Contoh :

  Gambar di samping menunjukkan ΔPQR dengan siku-siku di P dan $QR = 8$ cm dan $\angle Q = 60°$. Tentukan:

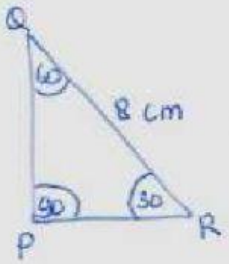
  a. Panjang PQ

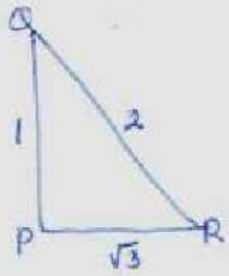
  b. Panjang PR



- Penyelesaian :

  Perhatikan !





Jadi,

a. $\frac{QR}{2} = \frac{PQ}{1}$

$\frac{8}{2} = \frac{PQ}{1}$

$PQ = \frac{8 \times 1}{2}$

$PQ = \frac{8}{2}$

$PQ = 4$ cm

b. $\frac{PR}{\sqrt{3}} = \frac{QR}{2}$

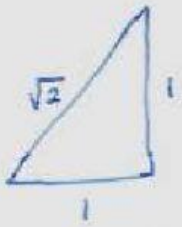
$\frac{PR}{\sqrt{3}} = \frac{8}{2}$

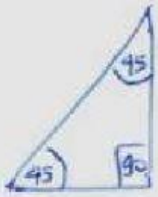
$PR = \frac{8 \times \sqrt{3}}{2}$

$PR = 4\sqrt{3}$

Sudut $45^\circ - 45^\circ - 90^\circ$

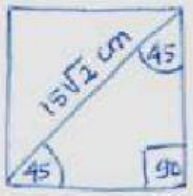
Perbandingannya $1 : 1 : \sqrt{2}$





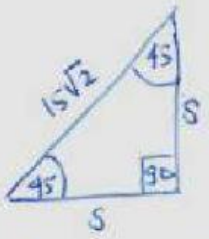
- Contoh :

Panjang diagonal suatu persegi adalah $15\sqrt{2}$ cm. Hitunglah keliling, Luas persegi tersebut!



- Penyelesaian :

Cari dahulu sisi sebelum menentukan keliling & Luas persegi!



Jadi $\frac{15\sqrt{2}}{\sqrt{2}} = \frac{\text{sisi (s)}}{1}$

$s = \frac{15\sqrt{2} \times 1}{\sqrt{2}}$

$s = \frac{15\sqrt{2}}{\sqrt{2}}$

$s = 15$ cm

Sehingga

$K = 4 \times \text{sisi}$

$= 4 \times 15$ cm

$= 60$ cm

$L = \text{sisi} \times \text{sisi}$

$= 15 \times 15$

$= 225$ cm^2

Soal !

Tentukan panjang sisi yang ditunjukkan oleh *huruf* pada gambar !

1)

Perbandingan sudut

$1 : 1 : \sqrt{2}$

Jadi, $\frac{a}{\quad} = \frac{\sqrt{32}}{\quad}$ ← dikali silang

$a \times \quad = \sqrt{32} \times$

$a = \underline{\sqrt{32} \times}$

$a =$ cm

2)

Perbandingannya

: :

Jadi, $\frac{c}{\quad} = \frac{17\sqrt{2}}{\quad}$

$c \times \quad = 17\sqrt{2} \times$

$c = \underline{17\sqrt{2} \times}$

$c =$ cm

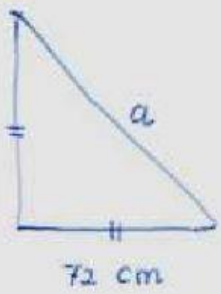
$\frac{d}{\quad} = \frac{17\sqrt{2}}{\quad}$

$d \times \quad = 17\sqrt{2} \times$

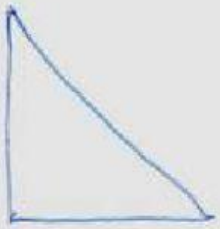
$d = \underline{17\sqrt{2} \times}$

$d =$ cm

3)



⇒



Perbandingan

: :

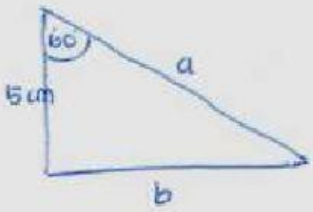
Jadi $\frac{a}{\quad} = \frac{72}{\quad}$

$ax = 72x$

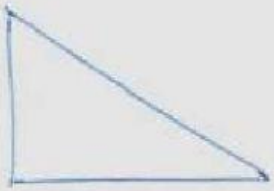
$a = \frac{x}{\quad}$

$a =$ cm

4)



⇒



Perbandingan

: :

Jadi,

- $\frac{a}{\quad} = \frac{5 \text{ cm}}{\quad}$

$ax = 5x$

$a = \frac{5x}{\quad}$

$a =$ cm

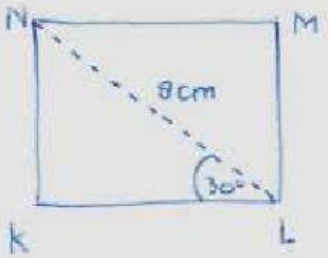
- $\frac{b}{\quad} = \frac{5}{\quad}$

$x = x$

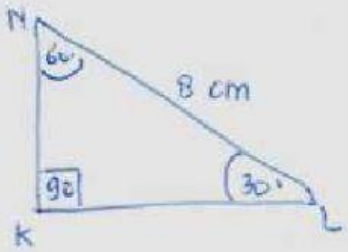
$b = x$

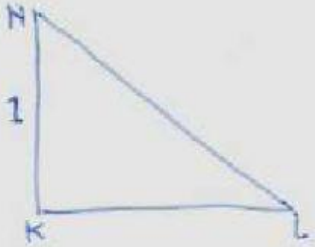
$b =$ cm

5) Tentukan luas persegi panjang berikut !



Jawab :





Perbandingan

: :

- $\frac{KL}{\quad} = \frac{8}{\quad}$

$KL \times \quad = 8 \times$

$KL = \frac{\quad \times \quad}{\quad}$

$KL = \quad$ cm

- $\frac{KN}{\quad} = \frac{8}{\quad}$

$KN \times \quad = 8 \times$

$KN = \frac{\quad \times \quad}{\quad}$

$KN = \quad$ cm

Jadi $L_{KLMN} = P \times \ell$

$= KL \times KN$

$= \quad \times$

$= \quad cm^2$

Selamat Mengerjakan