

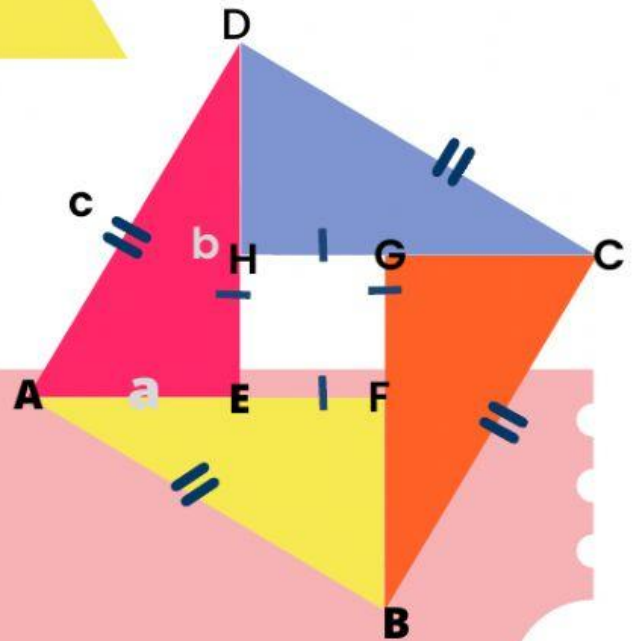
Pembuktian Teorema Pythagoras

AYO MENCoba

1. Sediakan 4 buah segitiga siku siku yang sama



2. atur sehingga membentuk seperti dibawah ini



$$AB = BC = CD = DA = \dots = \dots$$

$$EF = \dots = \dots = \dots = \dots$$

$$AE = \dots = \dots = \dots = \dots$$

$$DE = \dots = \dots = \dots = \dots$$

$$EF = AF - AE = b - \dots$$

$$\leftrightarrow \text{Luas } ABCD = 4 \text{ luas } ABC + \text{Luas } EFGH$$

$$\leftrightarrow AB^2 = 4 \times \frac{1}{2} \times AE \times DE + EF^2$$

$$\leftrightarrow c^2 = 2 \times \dots \times \dots + (b - \dots)^2$$

$$c^2 = 2ab + b^2 - 2ab + \dots^2$$

$$c^2 = b^2 + \dots^2$$

TERBUKTI BAHWA

$$c^2 = a^2 + b^2$$

LEMBAR KERJA PESERTA DIDIK (LKPD)

1. Berdasarkan gambar di samping

$$L_I = 4 \times 4 = \dots$$

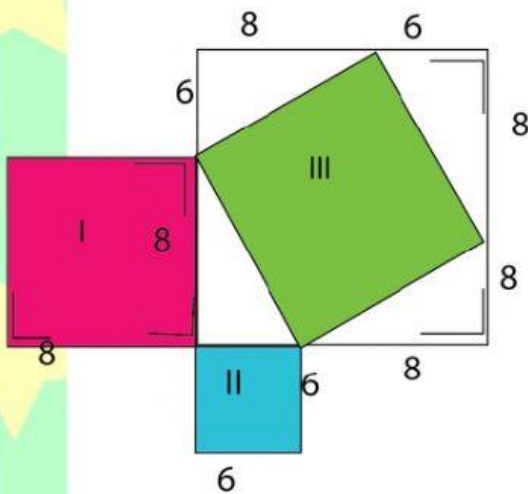
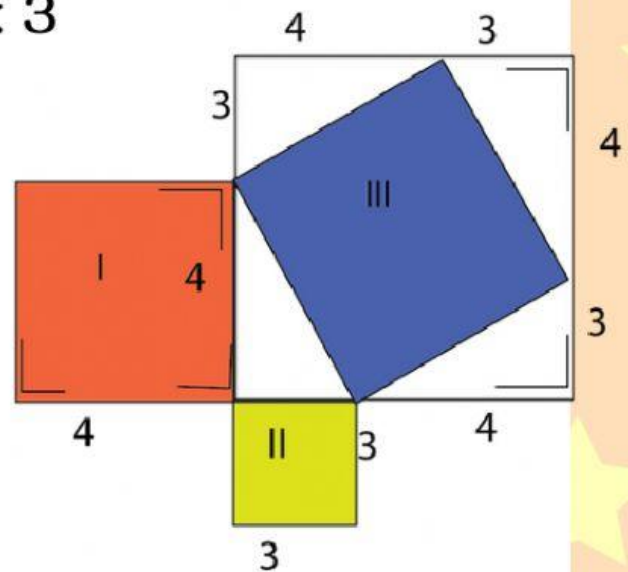
$$L_{II} = 3 \times 3 = \dots$$

$L_{III} = \text{Luas persegi} - 4 \text{ Luas segitiga}$

$$L_{III} = 7 \times 7 - 4 \times \frac{1}{2} \times 4 \times 3$$

$$L_{III} = \dots - \dots$$

$$L_{III} = \dots$$



2. Berdasarkan gambar di samping

$$L_I = \dots \times \dots = \dots$$

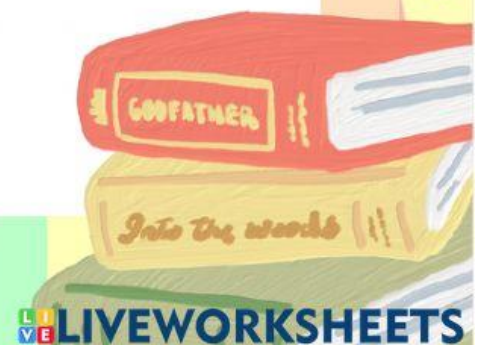
$$L_{II} = \dots \times \dots = \dots$$

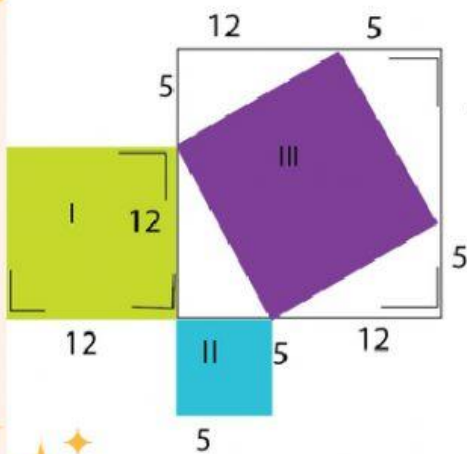
$L_{III} = \text{Luas persegi} - 4 \text{ Luas segitiga}$

$$L_{III} = \dots \times \dots - 4 \times \frac{1}{2} \times \dots \times \dots$$

$$L_{III} = \dots - \dots$$

$$L_{III} = \dots$$





3. Berdasarkan gambar di samping

$$L_I = \dots \times \dots = \dots$$

$$L_{II} = \dots \times \dots = \dots$$

$L_{III} = \text{Luas persegi} - 4 \text{ Luas segitiga}$

$$L_{III} = \dots \times \dots - 4 \times \frac{1}{2} \times \dots \times \dots$$

$$L_{III} = \dots - \dots$$

$$L_{III} = \dots$$

Berdasarkan ketiga kegiatan di atas lengkapilah tabel di bawah ini !

No	LUAS		
	L _I	L _{II}	L _{III}
1			
2			
3			

Dari tabel di atas :

$$1. L_I = 9 = 3 \times 3 = 3^2$$

$$L_{II} = 16 = 4 \times 4 = 4^2$$

$$L_{III} = 25 = 5 \times 5 = 5^2$$

$$2. L_I = \dots = \dots \times \dots = \dots$$

$$L_{II} = \dots = \dots \times \dots = \dots$$

$$L_{III} = \dots = \dots \times \dots = \dots$$

$$3. L_I = \dots = \dots \times \dots = \dots$$

$$L_{II} = \dots = \dots \times \dots = \dots$$

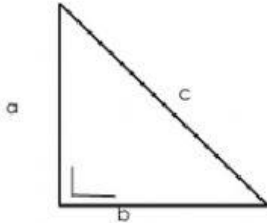
$$L_{III} = \dots = \dots \times \dots = \dots$$

4. Hubungan antara L_I , L_{II} , dan L_{III} adalah :

$$L_{III} = \dots + \dots$$

Catatan

Dari kegiatan di atas dapat disimpulkan bahwa :

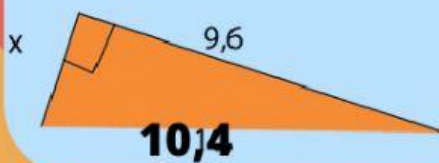
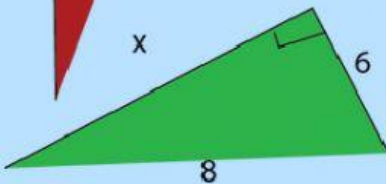
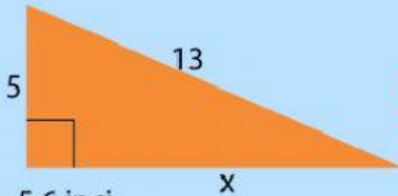
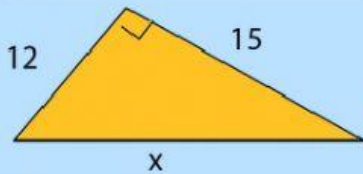


$$c^2 = \dots^2 + \dots^2$$

$$a^2 = \dots^2 - \dots^2$$

$$b^2 = \dots^2 - \dots^2$$

- Gunakan teorema pythagoras untuk menentukan nilai yang belum diketahui pada masing - masing gambar di bawah ini!



$2\sqrt{7}$



4



19,20



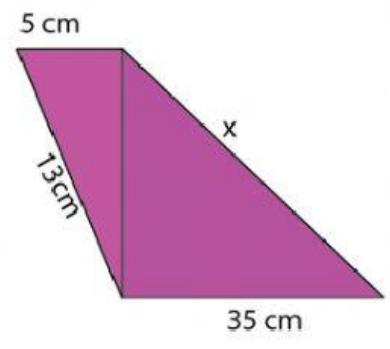
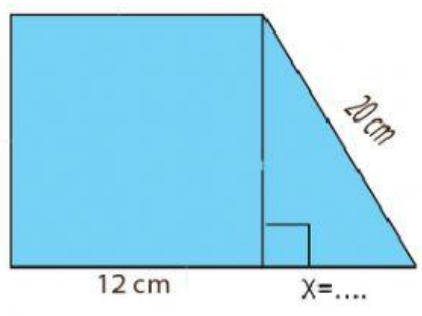
9



12

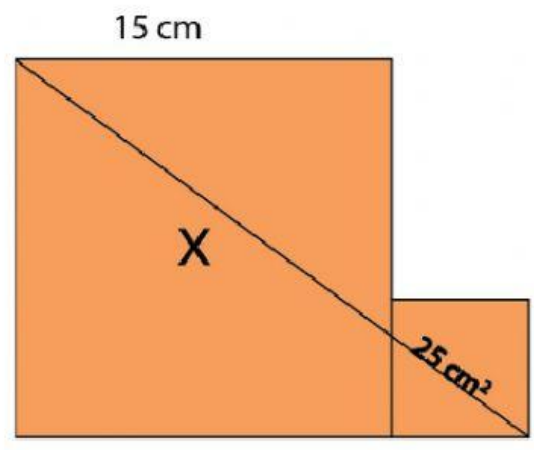


2. Tentukan nilai x pada kedua gambar di bawah ini !



3. Perhatikan gambar dua persegi di samping Panjang sisi persegi besar adalah 15 cm Luas persegi kecil 25 cm^2 Tentukan nilai x

$X = \dots\dots$



4. Perhatikan gambar di bawah. Diketahui ABC siku-siku di B dengan panjang $AC = 40 \text{ cm}$ dan $BC = 24 \text{ cm}$. Titik D terletak pada AB sedemikian sehingga panjang $CD = 25 \text{ cm}$.

Panjang $AD = \dots\dots \text{cm}$

