

## A. Pengertian Trapezium



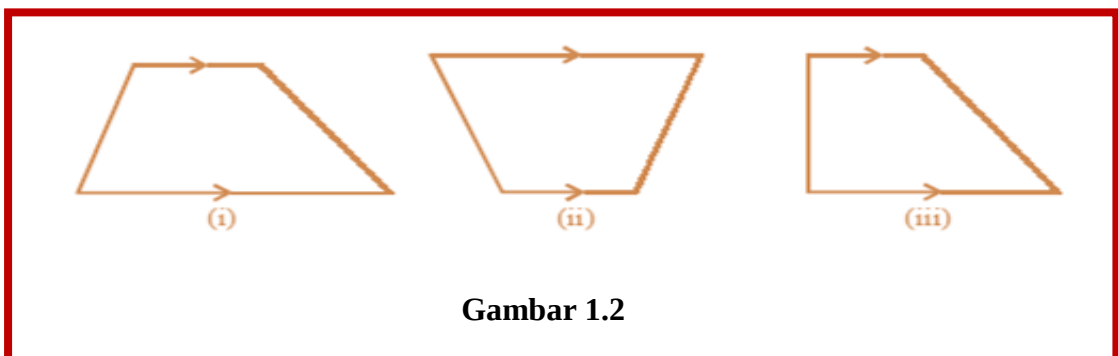
Perhatikan gambar rumah adat di samping! Bagaimana bentuk atap rumah yang ditunjuk dengan panah hitam?

Bagaimana sisi-sisi trapesium pada atap rumah tersebut! Apa yang dapat kamu katakan?

Gambar 1.1

*Rumah adat nuwo sesat, Lampung*

Atap rumah pada rumah adat nuwo sesat, Lampung di atas berbentuk **trapesium**. Perhatikan gambar di bawah ini!!



Gambar 1.2

Gambar 1.2 di atas adalah berbagai macam jenis bangun trapesium.

Perhatikan sisi – sisinya. Pada setiap jenis bangun trapesium terdapat tepat sepasang sisi yang berhadapan sejajar.

***Trapezium adalah segiempat yang mempunyai tepat sepasang sisi yang berhadapan sejajar.***



## A. Definition of Trapezoid



Look at the picture of custom house on the left!

What is the shape of roof in black arrow?

What do you think about the sides?

What can you conclude?

Figure 1.1

*Rumah adat nuwo sesat, Lampung*

The roof in the pictures above has a shape as **trapezoid**. Look at the figure below!

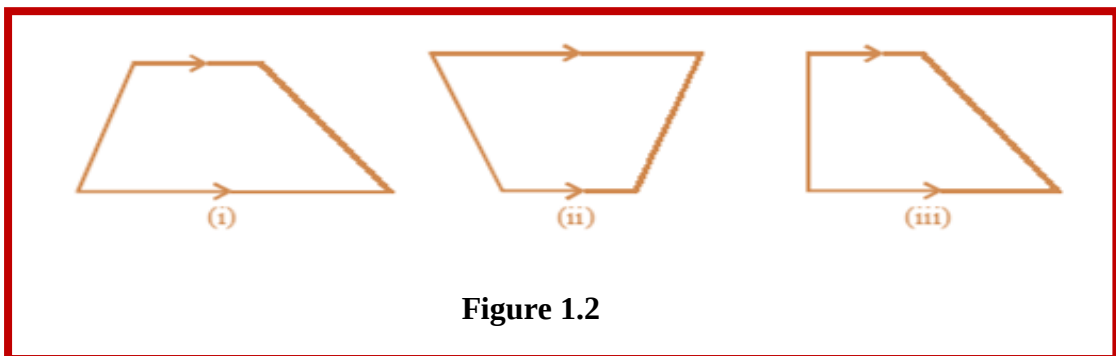


Figure 1.2

The pictures in figure 1.2 above are various types of trapezoid.

Consider on each side. In every trapezoid, there is exactly a pair of faced sides which are parallel.

***Trapezoid is a quadrilateral which has a pair of parallel opposite sides.***

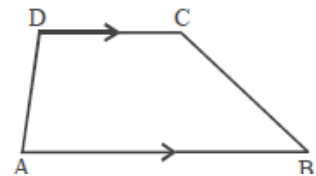


## Jenis-jenis trapesium

Secara umum ada tiga jenis trapesium, yaitu sebagai berikut.

### 1. Trapesium sebarang

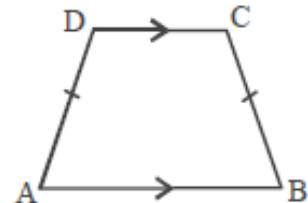
*Trapesium sebarang* adalah trapesium yang keempat sisinya tidak sama panjang. Pada gambar di samping,  $AB \parallel DC$ , sedangkan masing-masing sisi yang membentuknya, yaitu  $AB$ ,  $BC$ ,  $CD$ , dan  $AD$  tidak sama panjang.



Gambar 1.3

### 2. Trapesium sama kaki

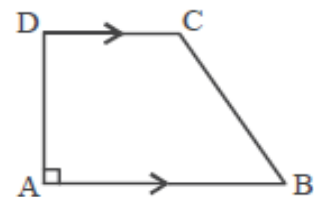
*Trapesium sama kaki* adalah trapesium yang mempunyai sepasang sisi yang sama panjang, di samping mempunyai sepasang sisi yang sejajar. Pada gambar di samping,  $AB \parallel DC$  dan  $AD = BC$ .



Gambar 1.4

### 3. Trapesium siku-siku

*Trapesium siku-siku* adalah trapesium yang salah satu sudutnya merupakan sudut siku-siku ( $90^\circ$ ). Pada gambar di samping, selain  $AB \parallel DC$ , juga tampak bahwa besar  $\angle DAB = 90^\circ$  (siku-siku).



Gambar 1.5

## Types of Trapezoid

In general, there are three types of trapezoid as follows.

### 1. Any trapezoid

*Any trapezoid* is trapezoid whose four sides are not equal in length. In the right picture,  $AB \parallel DC$ , while each side of trapezoid, namely  $AB$ ,  $BC$ ,  $CD$  and  $AD$  are not equal in length.

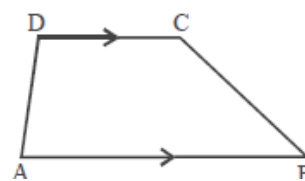


Figure 1.3

### 2. Isosceles trapezoid

*Isosceles trapezoid* is trapezoid which has a pair of sides equal in length and a pair of parallel sides. In the right picture,  $AB \parallel DC$  and  $AD = BC$ .

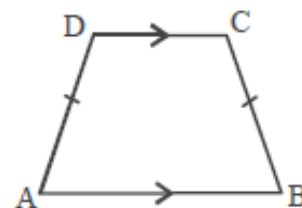


Figure 1.4

### 3. Right angle trapezoid

*Right angle trapezoid* is trapezoid which one of its angle is a right angle ( $90^\circ$ ). In the figure 6.5,  $AB \parallel DC$  and the measure of  $\angle DAB = 90^\circ$  (right angle).

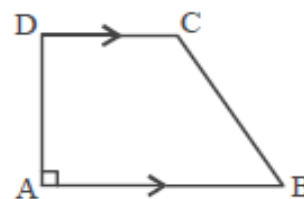


Figure 1.5

## B. Menentukan Sifat-Sifat Trapezium

Sifat-sifat trapesium ditinjau dari sisi, diagonal, dan sudutnya. Untuk mengetahui sifat-sifat trapesium, lakukan kegiatan berikut !!

### Kegiatan siswa 1.1

#### **Kerjakan secara mandiri!**

Berilah tanda “√” bila memenuhi sifat yang ditunjuk dan tanda “×” bila tidak memenuhi sifat trapesium yang dimaksud!

| No | Sifat-sifat                                                     | Trapezium siku-siku | Trapezium Sama kaki | Trapezium Sebarang |
|----|-----------------------------------------------------------------|---------------------|---------------------|--------------------|
| 1. | Memiliki tepat sepasang sudut siku-siku                         |                     |                     |                    |
| 2. | Sudut alas sama besar                                           |                     |                     |                    |
| 3. | Diagonal sama panjang                                           |                     |                     |                    |
| 4. | Tepat sepasang sisi yang berhadapan sejajar                     |                     |                     |                    |
| 5. | Jumlah sudut yang berdekatan di antara dua sisi sejajar $180^0$ |                     |                     |                    |
| 6. | Jumlah semua sudut $360^0$                                      |                     |                     |                    |

## B. Determine The Properties of Trapezoid

We can determine the properties of trapezoid according to side, diagonal and angle. To understand the properties of trapezoid, let's do the following activity!

### *Student's Activity 1.1*

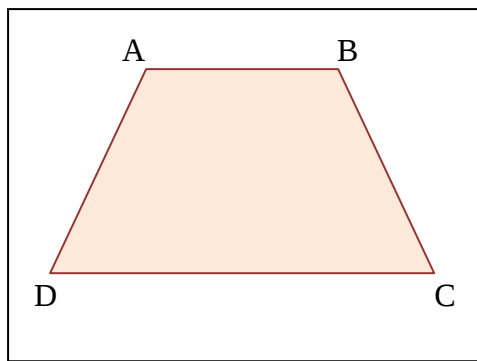
#### **Do it by your self!**

Given sign “√” if it satisfies the property and sign “×” if it is unsatisfied!

| No | The properties of Trapezoid                                                         | Right Angle Trapezoid | Isosceles Trapezoid | Any Trapezoid |
|----|-------------------------------------------------------------------------------------|-----------------------|---------------------|---------------|
| 1. | It has a pair of right angles                                                       |                       |                     |               |
| 2. | The base angles are equal in measure                                                |                       |                     |               |
| 3. | The diagonals are equal in length                                                   |                       |                     |               |
| 4. | It has a pair of parallel sides                                                     |                       |                     |               |
| 5. | The sum of its adjacent interior angles between two parallel sides is $180^{\circ}$ |                       |                     |               |
| 6. | The sum of all angles is $360^{\circ}$                                              |                       |                     |               |



Contoh Soal 1.1:



Perhatikan gambar trapesium di samping!

Jika  $\angle BAD = 7x$ ,  $\angle ABC = 4y$ ,  $\angle BCD = z$ , dan  $\angle ADC = 40^\circ$ , maka tentukan nilai  $x$ ,  $y$ , dan  $z$  !

Penyelesaian Contoh Soal 1.1:



Jawab:

**Diketahui :**

$$\text{Besar } \angle BAD = 7x$$

$$\text{Besar } \angle BCD = z$$

$$\text{Besar } \angle ABC = 4y$$

$$\text{Besar } \angle ADC = 40^\circ$$

**Ditanyakan :**

Nilai  $x$ ,  $y$ , dan  $z = \dots\dots\dots ?$

**Penyelesaian :**

■ **Ingat!** Jumlah sudut yang berdekatan di antara dua sisi sejajar adalah  $180^\circ$

$$40^\circ + 7x = 180^\circ$$

$$7x = 180^\circ - 40^\circ$$

$$7x = 140^\circ$$

$$x = \frac{140^\circ}{7}$$

$$x = 20^\circ$$

■ **Ingat !** Sudut alas sama besar

$$z = 40^\circ$$

■ **Ingat!** Jumlah sudut yang berdekatan di antara dua sisi sejajar adalah  $180^\circ$

$$z + 4y = 180^\circ$$

$$40^\circ + 4y = 180^\circ$$

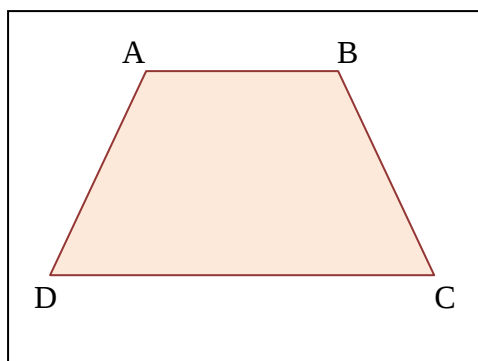
$$4y = 180^\circ - 40^\circ$$

$$4y = 140^\circ$$

$$y = \frac{140^\circ}{4} = 35^\circ$$



Example 1.1:



Look at the figure of trapezoid on the left!

If  $\angle BAD = 7x$ ,  $\angle ABC = 4y$ ,  $\angle BCD = z$ , and  $\angle ADC = 40^\circ$ , then find the value of  $x$ ,  $y$  and  $z$  !

The answer of example 1.1:



Answer :

**Given** :

The measure of  $\angle BAD = 7x$     The measure of  $\angle BCD = z$

The measure of  $\angle ABC = 4y$     The measure of  $\angle ADC = 40^\circ$

**Question** :

The value of  $x$ ,  $y$  and  $z = \dots\dots\dots?$

**Solution** :

■ **Remember!** The sum of its adjacent interior angles between two parallel sides is  $180^\circ$

$$40^\circ + 7x = 180^\circ$$

$$7x = 180^\circ - 40^\circ$$

$$7x = 140^\circ$$

$$x = \frac{140^\circ}{7}$$

$$x = 20^\circ$$

■ **Remember!** The base angles are equal in measurement

$$z = 40^\circ$$

■ **Remember!** The sum of its adjacent interior angles between two parallel sides is  $180^\circ$

$$z + 4y = 180^\circ$$

$$40^\circ + 4y = 180^\circ$$

$$4y = 180^\circ - 40^\circ$$

$$4y = 140^\circ$$

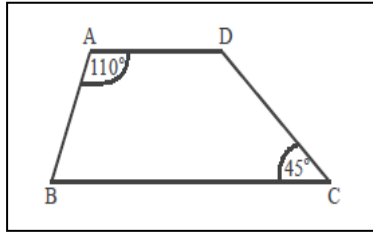
$$y = \frac{140^\circ}{4} = 35^\circ$$



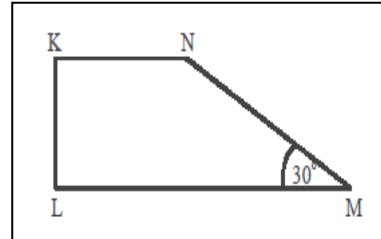
## Asah Otak 1.1

1. Tentukan besar semua sudut yang belum diketahui dari trapesium berikut.

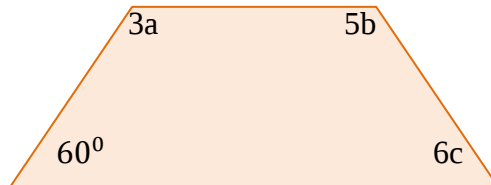
a.



b.



2.



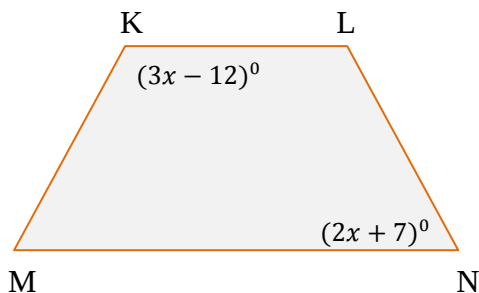
Perhatikan gambar trapesium sama kaki di samping!!

Tentukan nilai a, b, dan c !

3. Lukislah trapesium sama kaki PQRS dengan ketentuan sebagai berikut :

- panjang PQ = 14 cm,
- panjang RS = 8 cm,
- panjang PS = 5 cm,
- panjang sisi PQ sejajar dengan sisi RS
- besar  $\angle P = 48^\circ$

4. Pada trapesium KLMN dibawah ini, diketahui  $\angle K = (3x - 12)^\circ$  dan  $\angle N = (2x + 7)^\circ$ .

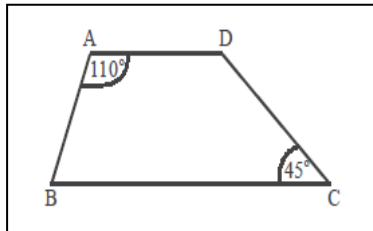


Tentukan besar  $\angle L$  dan  $\angle M$  !

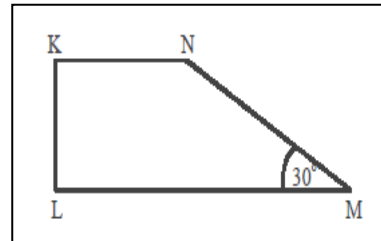


### Challenge 1.1

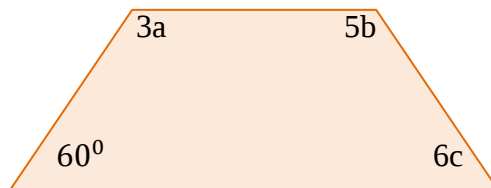
1. Find the all angles of these following trapezoid!



b.



- 2.



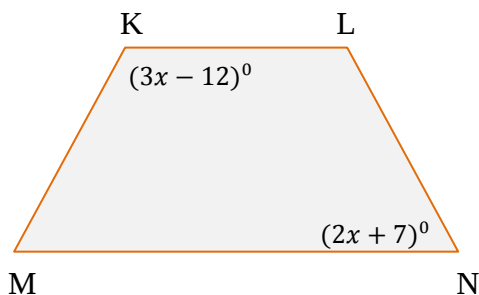
Look at the figure of isosceles trapezoid on the left!

Find the value of a, b and c !

3. Draw an isosceles trapezoid PQRS with some requirements below:

- the length of PQ = 14 cm,
- the length of RS = 8 cm,
- the length of PS = 5 cm,
- PQ // RS
- the measure of  $\angle P = 48^\circ$

4. In trapezoid KLMN below, given  $\angle K = (3x - 12)^\circ$  dan  $\angle N = (2x + 7)^\circ$ .



Find the measure of  $\angle L$  and  $\angle M$  !

*Kegiatan siswa 1.2*

**Kerjakan secara mandiri !**

**A. Alat dan bahan** : kertas dan pensil.

**B. Fungsi alat** : untuk menemukan rumus keliling trapesium.

**C. Langkah kerja** :

1. Gambarlah sebuah trapesium KLMN pada kertas.  
(Boleh trapesium sama kaki, trapesium siku-siku, atau trapesium sebarang)
2. Keliling trapesium KLMN = jumlahan dari seluruh sisi trapesium KLMN  
=  $KL + LM + MN + KN$

Jika    a = panjang sisi 1  
          b = panjang sisi 2  
          c = panjang sisi 3  
          d = panjang sisi 4

Maka :

Keliling trapesium = .....

### C. Determine The Perimeter of Trapezoid

## Student's Activity 1.2

### Do it by your self !

**A. Tool and material** : a paper and a pencil

**B. Function of the tool** : to find the perimeter of a trapezoid.

**C. Steps** :

1. Draw a trapezoid KLMN on a paper.

(you can draw isosceles trapezoid, right angle trapezoid or any trapezoid)

2. The perimeter of trapezoid KLMN = the sum of all sides of the trapezoid KLMN  
=  $KL + LM + MN + KN$

If      a = the length of side 1  
         b = the length of side 2  
         c = the length of side 3  
         d = the length of side 4

Thus :

The perimeter of trapezoid = .....

#### D. Menentukan Luas Trapesium

### Kegiatan siswa 1.3

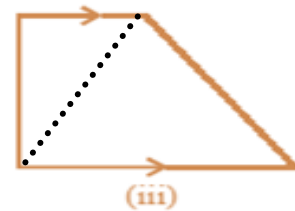
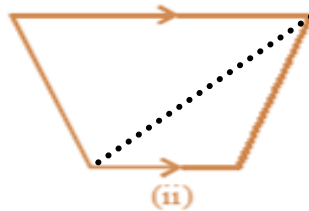
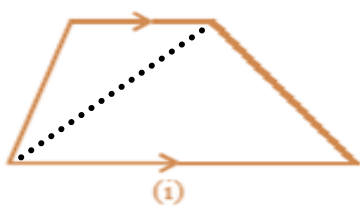
#### Kerjakan secara mandiri !

A. Alat dan bahan : kertas dan pensil.

B. Fungsi alat : untuk menemukan rumus luas trapesium.

C. Langkah kerja :

1. Lukislah sebuah trapesium pada kertas (*boleh trapesium siku-siku, trapesium sebarang atau trapesium sama kaki*).
2. Lukis salah satu diagonal trapesium tersebut sehingga membagi trapesium menjadi dua buah segitiga (*seperti gambar di bawah*).



3. Luas trapesium = jumlahan luas dua segitiga

$$\begin{aligned}\text{Luas trapesium} &= \text{luas segitiga 1} + \text{luas segitiga 2} \\ &= \end{aligned}$$

#### D. Determine The Area of Trapezoid

### Student's Activity 1.3

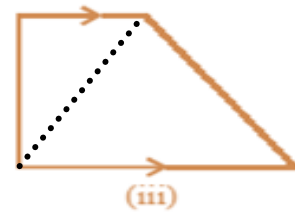
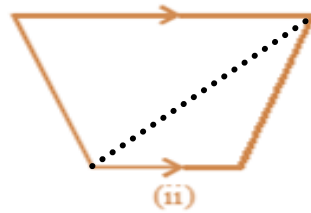
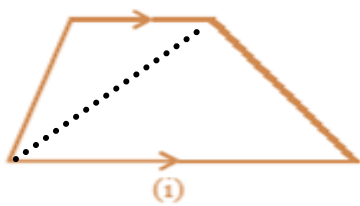
#### Do it by your self !

A. Tool and material : a paper and a pencil

B. Function of the tool : to find the area of a trapezoid.

C. Steps :

1. Draw a trapezoid on a paper (you can draw right angle trapezoid, any trapezoid, or isosceles trapezoid)
2. Draw one diagonal of trapezoid so that divided trapezoid into two triangle (like the figure below).



3. The area of trapezoid = the sum of the area of two triangles

The area of trapezoid = the area of triangle 1 + the area of triangle 2

=



**Contoh Soal 1.2:**

Sebuah taman berbentuk trapesium siku-siku dengan panjang sisi-sisi sejajarnya adalah 12 m dan 24 m. Jika tinggi trapesium 16 m, tentukan :

- panjang sisi miring
- luas trapesium.

**Penyelesaian Contoh Soal 1.2:**



Jawab:

**Diketahui :**

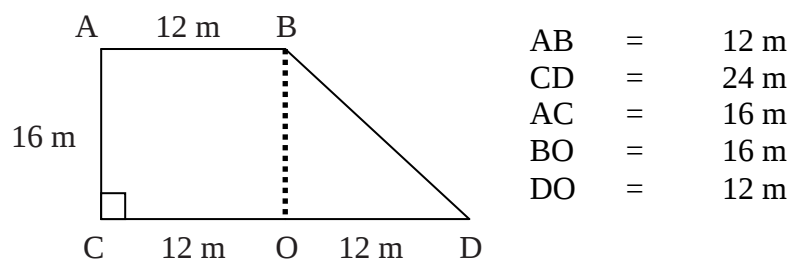
Panjang sisi-sisi sejajar = 12 m dan 24 m  
Tinggi trapesium = 16 m

**Ditanyakan :**

- panjang sisi miring = .....?
- L = .....?

**Penyelesaian :**

Misal trapesium siku-siku di atas adalah trapesium siku-siku ABCD.



- a. Panjang sisi miring = panjang BD

$$\begin{aligned}BD &= \sqrt{BO^2 + OD^2} \\&= \sqrt{16^2 + 12^2} \\&= \sqrt{400} \\&= 20 \text{ m}\end{aligned}$$

- b. Luas trapesium = L

$$\begin{aligned}L &= \frac{1}{2} \times \text{Jumlah sisi sejajar} \times t \\&= \frac{1}{2} \times (12 + 24) \times 16 \\&= 288 \text{ m}^2\end{aligned}$$





**Example 1.2:**

A park has a shape of right angle trapezoid with the length of parallel sides 12 m and 24 m. If the altitude of trapezoid is 16 m, find:

- the length of hypotenuse
- the area of the trapezoid

**The answer of example 1.2:**



Answer :

**Given :**

The length of parallel sides = 12 m and 24 m

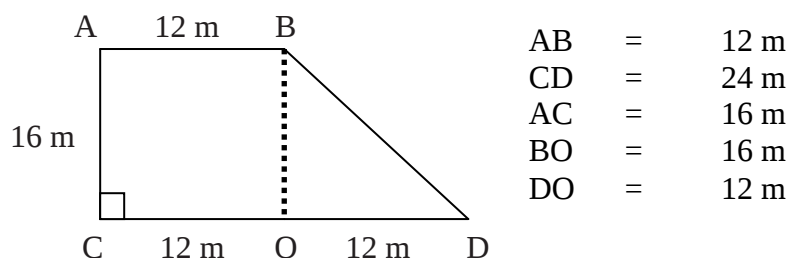
The altitude of trapezoid = 16 m

**Question :**

- The length of hypotenuse = .....?
- L = .....?

**Solution :**

Let's name the trapezoid above as trapezoid ABCD.



- The length of hypotenuse = the length of BD

$$\begin{aligned}
 BD &= \sqrt{BO^2 + OD^2} \\
 &= \sqrt{16^2 + 12^2} \\
 &= \sqrt{400} \\
 &= 20 \text{ m}
 \end{aligned}$$

- The area of trapezoid = L

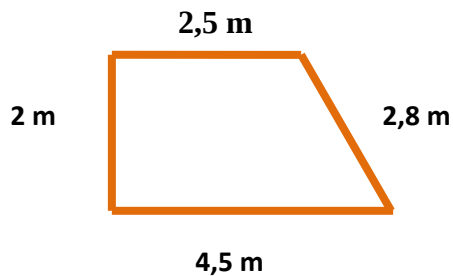
$$\begin{aligned}
 L &= \frac{1}{2} \times \text{the sum of the length of parallel sides} \times h \\
 &= \frac{1}{2} \times (12 + 24) \times 16 \\
 &= 288 \text{ m}^2
 \end{aligned}$$





## Asah Otak 1.2

1. Gambar dibawah ini menunjukkan tampak samping suatu gedung yang akan dicat.

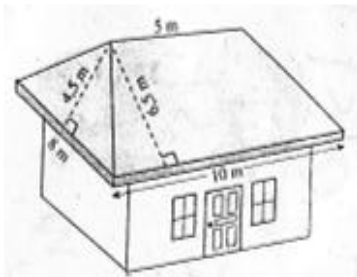


Hitunglah luas dan keliling bagian samping gedung yang akan dicat!

2. Sebuah taman berbentuk trapesium siku-siku dengan panjang sisi-sisi sejajarnya adalah 24 m dan 48 m. Jika tinggi trapesium 10 m, tentukan :

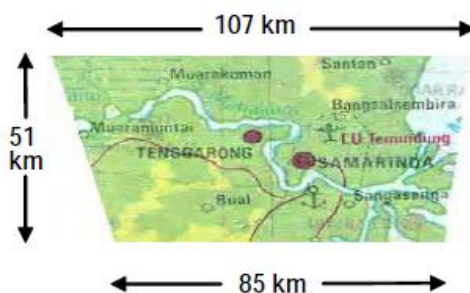
- panjang sisi miring
- luas taman.

- 3.



Gambar di samping menunjukkan bentuk sebuah rumah dengan atap yang terdiri dari sepasang trapesium dan sepasang segitiga. Jika tiap meter persegi atap membutuhkan 30 genteng, tentukan berapa banyak genteng yang dibutuhkan?

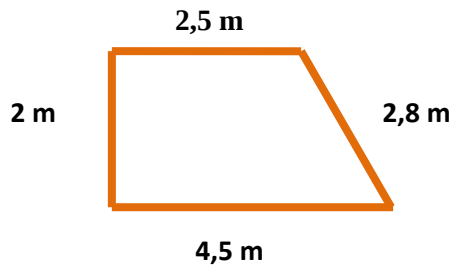
4. Sebuah taman berbentuk trapesium sama kaki dengan panjang sisi-sisi sejajarnya  $(x + 4)$  m dan  $(3x + 2)$  m. Jika jarak kedua garis sejajar  $2x$  m dan luas taman  $180 m^2$ , tentukan keliling taman tersebut!
5. Perkirakan berapakah luas wilayah yang ditunjukkan oleh luas daerah trapesium pada gambar di bawah!





## Challenge 1.2

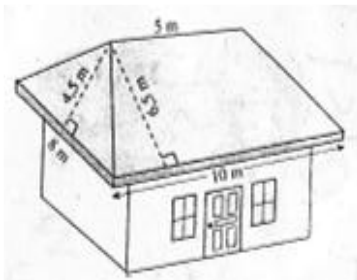
1. The following picture shows the edge-sight of a wall which will be painted.



Find the area and perimeter of the wall that will be painted!

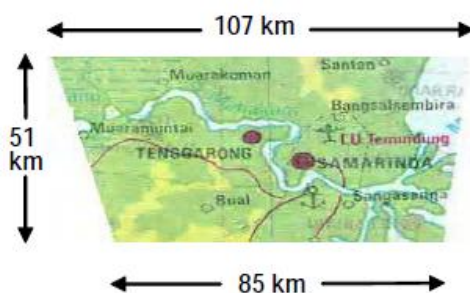
2. A park has a shape of right angle trapezoid with the length of parallel sides 24 m and 48 m. If the altitude of trapezoid is 10 m, find:
- the length of hypotenuse
  - the area of park.

3.



The picture on the left shows the roof of a house which consists of a pair of trapezoids and a pair of triangles. If a meter square of the roof requires 30 roof-tiles, then how many roof-tiles are required to cover the whole roof?

4. A park has a shape of isosceles trapezoid whose the length of parallel sides  $(x + 4)$  m and  $(3x + 2)$  m. If the distance between two parallel sides is  $2x$  m and the area of the park is  $180 \text{ m}^2$ , find the perimeter of this park!
5. Determine the area of the region which is shown by the following trapezoid figure!



## RANGKUMANKU.....

### a. Pengertian trapesium

Trapezium adalah segiempat yang mempunyai tepat sepasang sisi yang berhadapan sejajar. Ada tiga jenis trapesium, yaitu sebagai berikut :

1. Trapezium sebarang
2. Trapezium sama kaki
3. Trapezium siku-siku

### b. Sifat-sifat trapesium

- ✦ Mempunyai tepat sepasang sisi yang berhadapan sejajar.
- ✦ Jumlah sudut yang berdekatan di antara dua sisi sejajar adalah  $180^0$
- ✦ Jumlah semua sudutnya  $360^0$
- ✦ Trapezium sama kaki mempunyai ciri-ciri khusus, yaitu
  1. diagonal-diagonalnya sama panjang;
  2. sudut-sudut alasnya sama besar;

### c. Rumus keliling trapesium

Trapezium dengan panjang sisi berturut-turut a cm, b cm, c cm, dan d cm mempunyai keliling :  $K = (a + b + c + d) \text{ cm}$ .

### d. Rumus luas trapesium

Trapezium dengan panjang sisi sejajar berturut-turut a cm dan c cm serta tinggi t cm mempunyai luas :  $L = (\frac{1}{2} \times (a + c) \times t) \text{ cm}^2$

## MY SUMMARY.....

### a. The definition of trapezoid

Trapezoid is quadrilateral which has a pair of parallel opposite sides. There are three types of trapezoid:

1. Any trapezoid
2. Isosceles trapezoid
3. Right angle trapezoid

### b. The properties of trapezoid

- ✦ It has a pair of parallel sides
- ✦ The sum of its adjacent interior angles between two parallel sides is  $180^\circ$
- ✦ The sum of all angles is  $360^\circ$
- ✦ The isosceles trapezoid has a special properties. They are:
  1. the diagonals are equal in length
  2. the base angles are equal in measure

### c. The perimeter of trapezoid

Trapezoid with the length a cm, b cm, c cm, and d cm has a perimeter as :  
 $K = (a + b + c + d) \text{ cm}.$

### d. The area of trapezoid

Trapezoid with the length of parallel sides a cm and c cm, while the altitude is t cm has an area as :  $L = (\frac{1}{2} \times (a + c) \times t) \text{ cm}^2$



## Tes Formatif 1

**Petunjuk:** Pilih salah satu jawaban yang tepat untuk setiap soal dari 4 (empat) alternatif jawaban yang disediakan dengan memberikan tanda silang/cross (X) pada huruf A, B, C, atau D sesuai dengan jawaban yang Anda pilih.

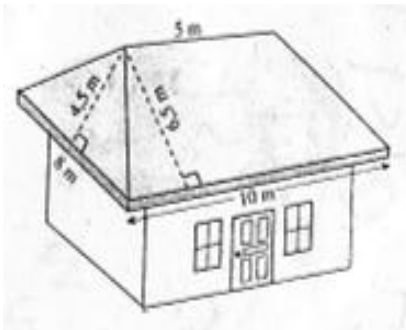
1. Dari pernyataan berikut :

- (i) Mempunyai tepat sepasang sisi yang berhadapan sejajar;
- (ii) diagonal-diagonalnya sama panjang;
- (iii) sudut-sudut alasnya sama besar;
- (iv) Jumlah sudut yang berdekatan di antara dua sisi sejajar adalah  $180^\circ$ .

Yang merupakan sifat trapesium siku-siku, *kecuali* . . . .

- a. (i) dan (ii)
- b. (i) dan (iii)
- c. (ii) dan (iii)
- d. (ii) dan (iv)

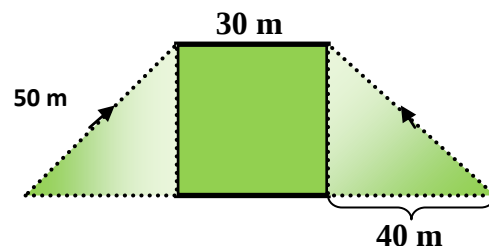
2.



Gambar di atas menunjukkan bentuk sebuah rumah dengan atap yang terdiri dari sepasang trapesium dan sepasang segitiga. Jika tiap meter persegi atap membutuhkan 40 genteng, maka banyak genteng yang dibutuhkan adalah . . . .

- a. 5240
- b. 5420
- c. 5340
- d. 5430

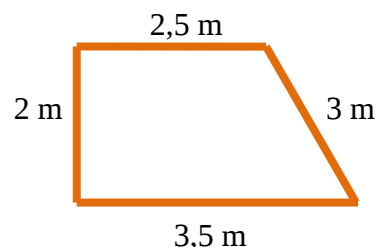
3. Kebun Pak Arka berbentuk persegi dengan sisi 30 m. Kemudian Pak Arka membeli tanah di sebelah kanan dan kiri kebunnya sehingga kebunnya kini berbentuk trapesium sama kaki. Pak Arka berniat untuk memagari kebunnya.



Panjang pagar yang diperlukan Pak Arka untuk memagari kebunnya adalah . . . .

- a. 240 m
- b. 300 m
- c. 2100 m
- d. 4200 m

4. Gambar dibawah ini menunjukkan tampak samping suatu dinding kamar yang akan dicat.



Luas dinding kamar yang akan dicat adalah . . . .

- a.  $6 m^2$
- b.  $6,25 m^2$
- c.  $8,25 m^2$
- d.  $9 m^2$



## Formative Test 1

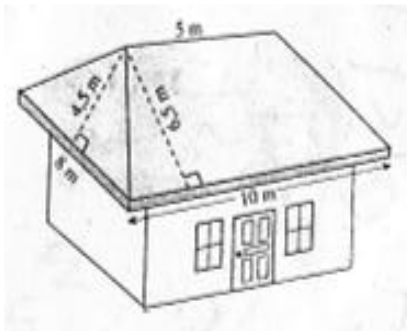
**Instruction** : Choose a correct answer for each question by giving a cross sign (X) on the letters A, B, C, or D.

1. Given the statements below :

- (i) It has a pair of parallel sides;
- (ii) The diagonals are equal in length;
- (iii) The base angles are equal in measurement;
- (iv) The sum of its adjacent interior angles between the two parallel sides is  $180^\circ$ .

Those are the properties of right angle trapezoid, *except* . . .

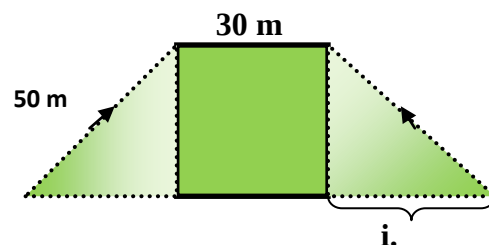
- a. (i) and (ii)
- b. (i) and (iii)
- c. (ii) and (iii)
- d. (ii) and (iv)



The figure above shows the roof of a house which consists of a pair of trapezoids and a pair of triangles. If a meter square of the roof requires 40 roof-tiles, then the number of roof-tiles which are required to cover the whole roof is . . .

- a. 5240
- b. 5420
- c. 5340
- d. 5430

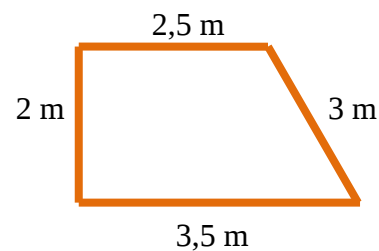
3. Mr. Arka's square-shaped garden had sides of 30 m in length. Then, he bought land at the right side and the left side of his garden, so that now he has an isosceles trapezoid-shaped garden.



If Mr. Arka wanted to fence off his garden, the length of fence is . . .

- a. 240 m
- b. 300 m
- c. 2100 m
- d. 4200 m

4. The following picture shows the edge-sight of a wall which will be painted.



The area of a wall that will be painted is . . .

- a.  $6 m^2$
- b.  $6,25 m^2$
- c.  $8,25 m^2$
- d.  $9 m^2$

5. Pak Badrun memiliki tanah berbentuk trapesium sama kaki yang panjang sisi sejajarnya adalah 100 m dan 40 m. Tinggi trapesium tersebut adalah 40 m. Sebagian tanah itu akan dijual, sehingga tersisa tanah berbentuk persegi dengan panjang sisi 40 m. Harga tanah yang dijual Rp75.000,00/m<sup>2</sup>. Harga tanah keseluruhan yang dijual Pak Badrun adalah ....

- Rp78.000.000,00
- Rp90.000.000,00
- Rp105.000.000,00
- Rp 120.000.000,00

6. Luas wilayah daerah yang ditentukan oleh bentuk trapesium pada gambar di bawah ini adalah ....



- 10.000 km<sup>2</sup>
- 20.000 km<sup>2</sup>
- 30.000 km<sup>2</sup>
- 40.000 km<sup>2</sup>

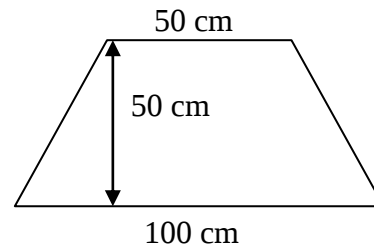
7. Sebuah taman berbentuk trapesium sama kaki dengan panjang sisi-sisi sejajarnya  $(x + 4)$  m dan  $(3x + 2)$  m. Jika jarak kedua garis sejajar  $2x$  m dan luas taman 180 m<sup>2</sup>, maka keliling taman adalah ....

- 54 m
- 56 m
- 65 m
- 69 m

8. Diketahui trapesium ABCD siku-siku di B dengan panjang AB = 21 cm, CD = 6 cm, dan luasnya 108 cm<sup>2</sup>. Keliling trapesium ABCD adalah ....

- 60 cm
- 56 cm
- 55 cm
- 52 cm

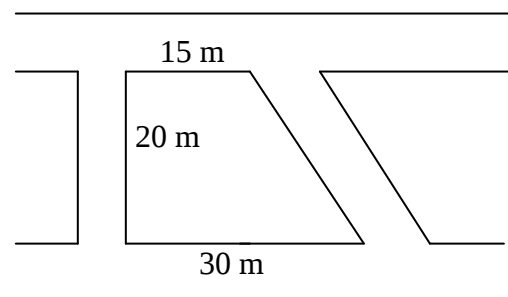
9. Sebuah permukaan meja berbentuk trapesium, seperti gambar di bawah ini.



Jika 1 cm<sup>2</sup> permukaan meja yang terbuat dari granit berharga Rp250,00, maka harga permukaan meja tersebut adalah ....

- Rp92.750,00
- Rp93.750,00
- Rp927.500,00
- Rp937.500,00

10. Gambar berikut menunjukkan taman berbentuk trapesium siku-siku yang dikelilingi oleh jalan. Sekeliling taman itu akan ditanami pohon dengan jarak masing-masing 1 meter, dimulai dari keempat pojok taman.



Jika harga 1 bibit pohon Rp1.500,00, maka biaya pembelian semua bibit tersebut adalah ....

- Rp13.500,00
- Rp135.000,00
- Rp1.350.000,00
- Rp13.500.000,00

5. Mr. Badrun has a parcel of land in the shape of isosceles trapezoid with the lengths of its parallel sides 100 m and 40 m. The altitude of the trapezoid is 40 m. A part of land will be sold, so that the remain land is in the shape of square with sides 40 m in length. If the price of the land is Rp75,000.00/ $m^2$ , then the price of whole sold land is . . . .

- Rp78.000.000,00
- Rp90.000.000,00
- Rp105.000.000,00
- Rp 120.000.000,00

6. The area of the region which is shown by the following trapezoid figure is . . . .



- $10.000 \text{ km}^2$
- $20.000 \text{ km}^2$
- $30.000 \text{ km}^2$
- $40.000 \text{ km}^2$

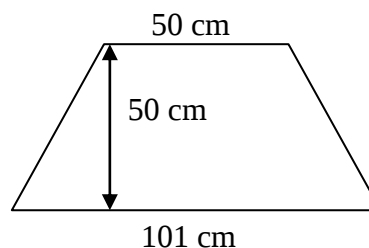
7. A park has an isosceles trapezoid shape. Its parallel sides have lengths of  $(x + 4)$  m and  $(3x + 2)$  m. If the distance between two parallel sides is  $2x$  m and the area of the park is  $180 \text{ m}^2$ , so the perimeter of the park is . . . .

- 54 m
- 56 m
- 65 m
- 69 m

8. Given right angle trapezoid ABCD with a right angle at B, the length of  $AB = 21$  cm,  $CD = 6$  cm and the area  $108 \text{ cm}^2$ . The perimeter of trapezoid ABCD is . . . .

- 60 cm
- 56 cm
- 55 cm
- 52 cm

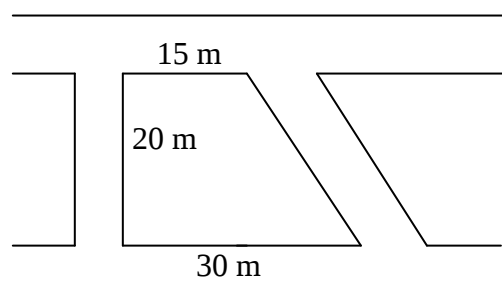
9. The surface of table which has a shape of trapezoid is shown as the figure below.



If  $1 \text{ cm}^2$  of the table's surface which is made from granite costs Rp250,00, then the price of all table's surfaces costs . . . .

- Rp92.750,00
- Rp93.750,00
- Rp927.500,00
- Rp937.500,00

10. The following figure shows the park that has a shape of right angle trapezoid which is surrounded by roads. Around the park, there will be planted by trees with a distance between two trees is 1 meter, starting from the four corners of the park.



If the price of one tree seedlings Rp1.500,00, then the total price to buy all these seedlings is . . . .

- Rp13.500,00
- Rp135.000,00
- Rp1.350.000,00
- Rp13.500.000,00

## Penilaian Mandiri & Umpan Balik



Cocokkan jawaban Anda dan hitunglah jawaban yang benar. Kemudian, gunakan rumus berikut untuk menghitung tingkat penguasaan Anda terhadap materi Kegiatan Belajar 1.

$$\text{Tingkat Penguasaan (TP)} = \frac{\text{Jumlah Jawaban yang Benar}}{\text{Jumlah Soal}} \times 100\%$$

|                                          |               |
|------------------------------------------|---------------|
| Arti tingkat penguasaan : $TP \geq 85\%$ | = Baik Sekali |
| $75\% \leq TP < 85\%$                    | = Baik        |
| $65\% \leq TP < 75\%$                    | = Cukup       |
| $TP < 65\%$                              | = Kurang      |



Jika Anda memperoleh tingkat penguasaan 75% atau lebih berarti Anda telah menyelesaikan pembelajaran materi pada kegiatan belajar 1. **Bagus!** Anda boleh melanjutkan mempelajari materi pada kegiatan belajar 2. Tetapi, jika Anda memperoleh tingkat penguasaan kurang dari 75%, Anda harus mempelajari lebih mendalam kegiatan belajar 1 atau menanyakan kepada guru Anda, terutama pada bagian yang belum Anda kuasai.

## Self Assessment & Feedback



Fit your answer and calculate the correct answer. Then, use the following formula to calculate your level of mastery on material Learning Activities 1.

$$\text{Level of Mastery (LM)} = \frac{\text{The number of correct answers}}{\text{The number of questions}} \times 100\%$$

Meaning the level of mastery :  $TP \geq 85\%$  = Excellent  
 $75\% \leq TP < 85\%$  = Good  
 $65\% \leq TP < 75\%$  = Fair  
 $TP < 65\%$  = Poor



If you gain the level of mastery 75% or more, it means that you have finished the learning materials on Learning Activities 1. **Good!** You may continue to study the materials in Learning Activities 2. But, if you gain level of mastery less than 75%, you have to learn more on Learning Activities 1 or ask your teacher especially the part that you have not been mastered well.

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]