SMP NEGERI 2 PALOPO

LEMBAR KERJA SISWA (LKS) MATEMATIKA

Sudut pada Dua Garis Sejajar yang Terpotong Sebuah Garis Lurus

Created : Hasriani Umar, S.Pd.
aniemath@gmail.com

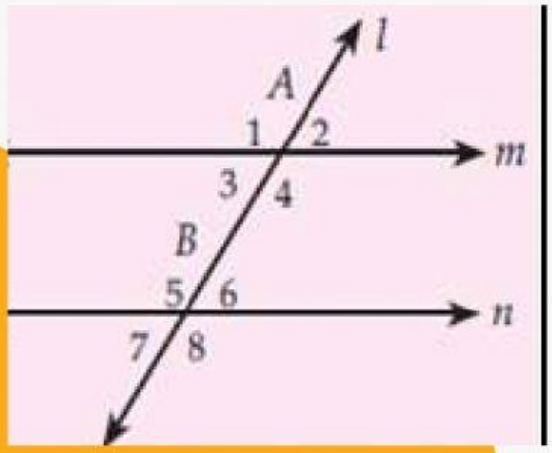
NAMA SISWA/ KELAS

LIVEWORKSHEETS

Sudut pada Dua Garis Sejajar yang Terpotong Sebuah Garis Lurus

Tujuan Pembelajaran:

- **Menemukan sifat-sifat sudut jika dua garis sejajar di potong garis transversal**
- **Menentukan besarnya sudut**



Simak Video Berikut ini! Pada gambar di atas, garis m dan garis n sejajar dimana l adalah garis tranversal. Garis l memotong garis m dan n sehingga membentuk 8 sudut yaitu ∠A1, ∠A2, ∠B7, dan ∠B8 yang merupakan sudut-sudut luar serta ∠A3, ∠4, ∠B5, dan ∠B6 merupakan sudut-sudut dalam.

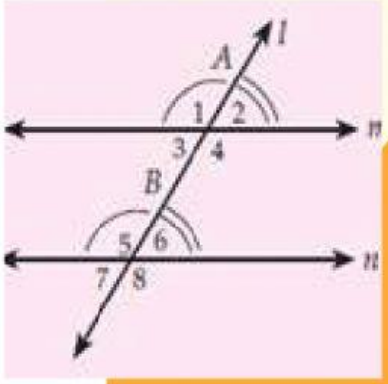
Simak Video Berikut ini!

LIVEWORKSHEETS

HUBUNGAN ANTAR SUDUT

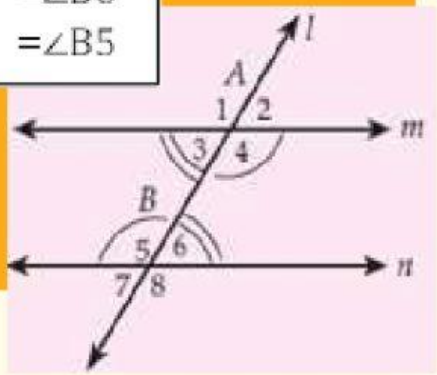
Sudut-Sudut yang Sehadap Sama Besar

∠A1 = ∠B5
∠A2 = ∠B6
∠A3 = ∠B7
∠A4 = ∠B8



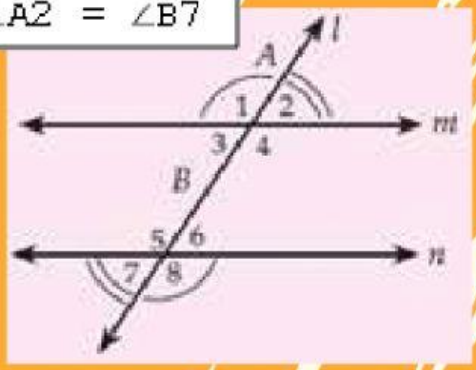
Sudut Dalam Bersebrangan Sama Besar

∠A3 =∠B6
∠A4 =∠B5



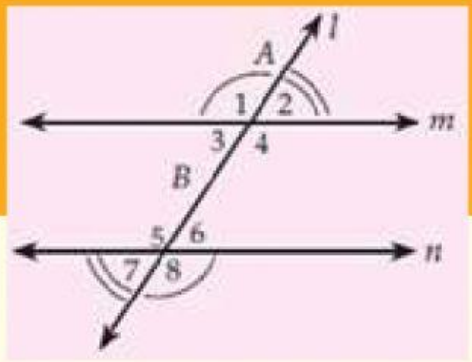
Sudut Luar Bersebrangan Sama Besar

∠A1 = ∠B8
∠A2 = ∠B7



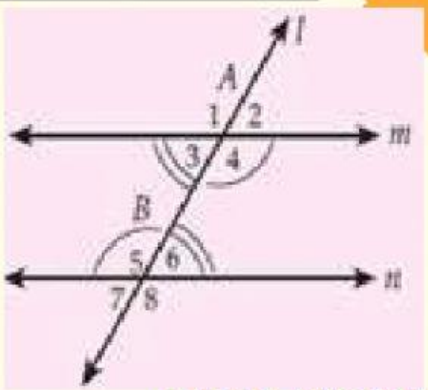
Jumlah sudut luar sepihak sama dengan 180

∠A1 + ∠B7 = 180°
∠A2 + ∠B8 = 180°



Jumlah sudut dalam sepihak sama dengan 180

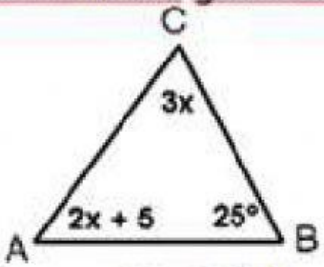
∠A3 + ∠B5 = 180°
∠A4 + ∠B6 = 180°



LIVEWORKSHEETS

CONTOH

1. Perhatikan gambar!



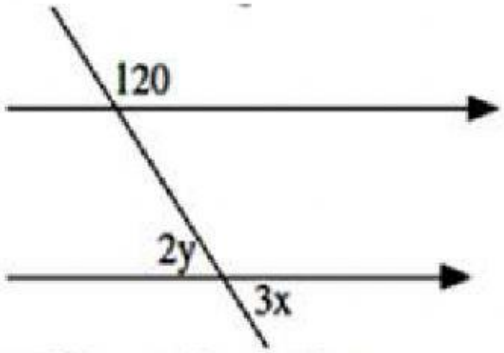
Besar ∠A adalah ....

Jawab:

$$(2x+5)^\circ + 3x^\circ + 25^\circ = 180^\circ$$
$$5x^\circ + 30^\circ = 180^\circ$$
$$5x^\circ = 180^\circ - 30^\circ$$
$$5x^\circ = 150^\circ$$
$$x^\circ = \frac{150^\circ}{5} = 30^\circ$$

Jadi, Besar ∠A adalah 30°

2. Perhatikan gambar!



Tentukan nilai y pada gambar.

Jawab:

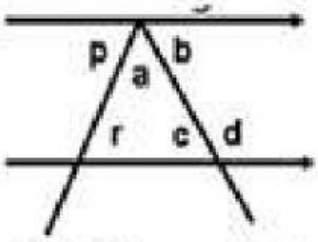
$2y^\circ + 120^\circ = 180^\circ$ (Berpelurus)

$$2y^\circ = 180^\circ - 120^\circ$$
$$2y^\circ = 60^\circ$$
$$y^\circ = \frac{60^\circ}{2} = 30^\circ$$

Jadi,besar nilai y = 30°

LIVEWORKSHEETS

3. Perhatikan gambar!



Jika nilai $a = 35°$ dan nilai $r = 70°$, maka nilai $d = \cdots$

Jawab:

$a + c + r = 180°$

$35° + c + 70° = 180°$

$c + 105° = 180°$

$c = 180° - 105°$

$c = \square°$

$\square + d = 180°$ (Berpelurus)

$d = 180° - \square°$

$d = \square°$

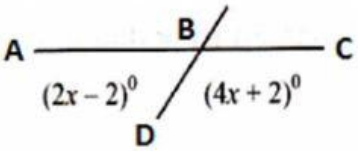
Jadi, Besar $\angle d$ adalah $\square°$

LIVEWORKSHEETS

TUGAS

A. Pilihan Ganda

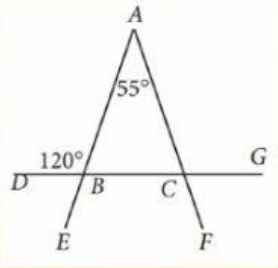
1. Perhatikan gambar berikut!



Besar $\angle DBC$ pada gambar adalah . . .

a. 30°
b. 58°
c. 116°
d. 122°

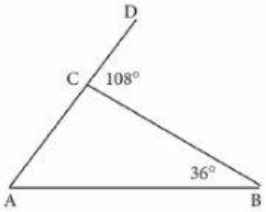
2. Perhatikan gambar berikut!



Besar $\angle ABC$ pada gambar adalah . . .

a. 30°
b. 60°
c. 65°
d. 115°

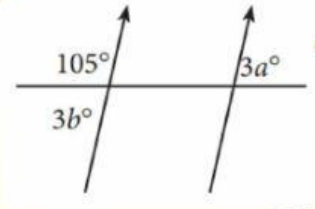
3. Perhatikan gambar!



Besar $\angle BAC$ pada gambar adalah . . .

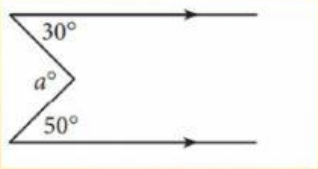
a. 24°
b. 48°
c. 72°
d. 98°

4. Nilai 3a + b pada gambar berikut adalah . . .



a. 20°
b. 25°
c. 50°
d. 100°

5. Perhatikan gambar berikut.



Besar nilai a pada gambar diatas adalah

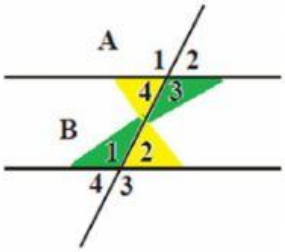
a. 60°
b. 70°
c. 80°
d. 90°

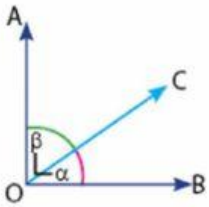
LIVEWORKSHEETS

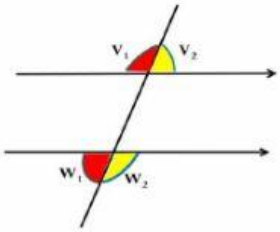
B. Essay

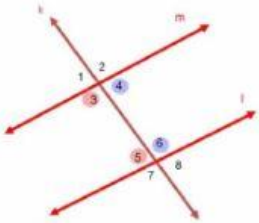
Petunjuk : Isilah kotak-kotak pada jawaban dengan menggeser kotak jawaban disamping.

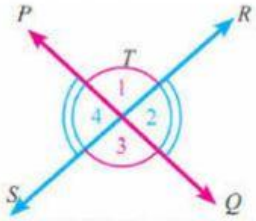
1. Tentukan jenis hubungan antar sudut dibawah ini?

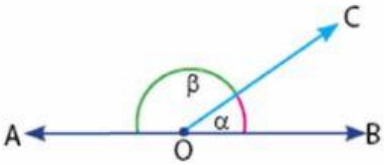












DALAM BERSEBRANGAN

LUAR SEPIHAK

DALAM SEPIHAK

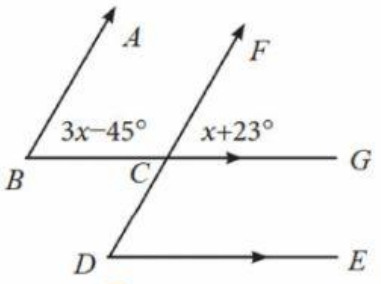
BERPELURUS

BERPENYIKU

BERTOLAKBELAKANG

LIVEWORKSHEETS

Perhatikan Gambar. Tentukanlah besar nilai x!



Jawaban :

$\angle ABC$ = ∠ [ ] Sehadap

[ ] = [ ]

[ ] = [ ]

[ ] = [ ]

[ ] = [ ] / [ ]

x = [ ]

Jadi, besar nilai x adalah [ ] °

CDE | $3x - 45°$ | $2x$ | $34°$ | 2 | $23° + 45°$ | $68°$ | $3x - x$ | BCD | $x + 23°$ | FCG | x | 68°

LIVEWORKSHEETS