
REFLEKSI (PENCERMINAN)

Aktivitas 1

Perhatikan gambar berikut!



Gambar 1



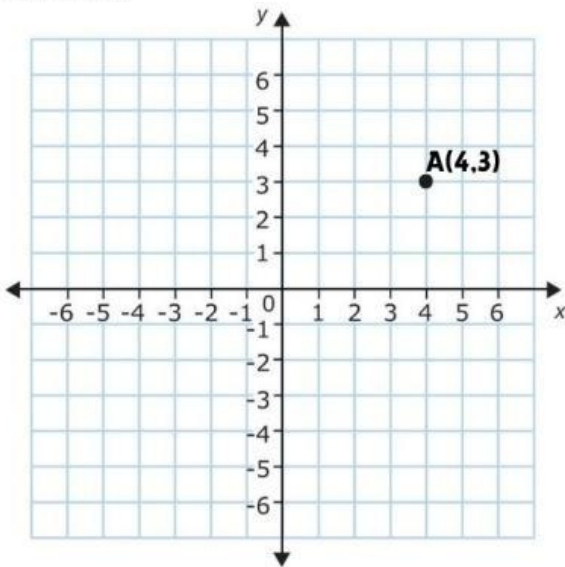
Gambar 2

Berdasarkan 2 gambar diatas,
Jelaskan sifat-sifat cermin!

Aktivitas 2

Tentukan bayangan titik koordinat A(x, y) oleh refleksi (pencerminan) berikut!

a) Sumbu X

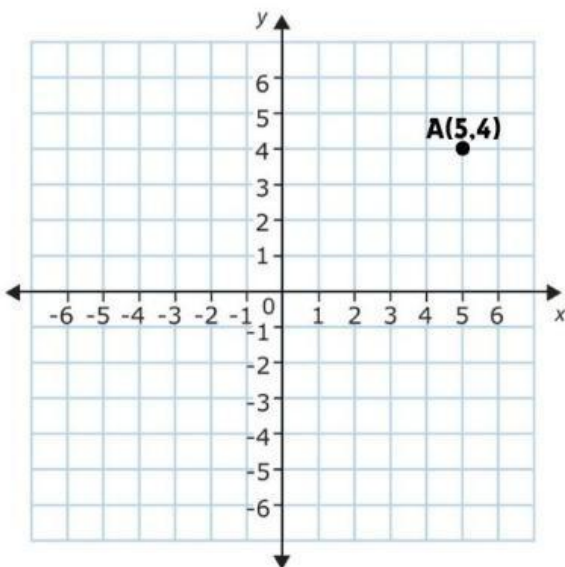


$$A(4, 3) \xrightarrow{M_{sb-x}} A'(\quad, \quad)$$

$$A(x, y) \xrightarrow{M_{sb-x}} A'(\quad, \quad)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

b) Sumbu Y

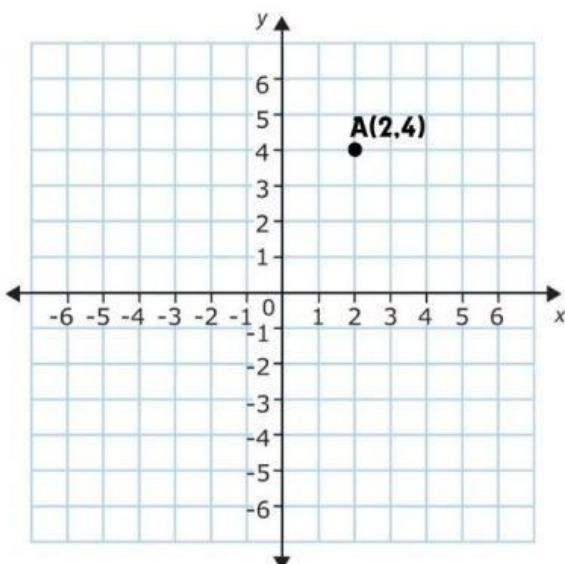


$$A(5, 4) \xrightarrow{M_{sb-y}} A'(\quad, \quad)$$

$$A(x, y) \xrightarrow{M_{sb-y}} A'(\quad, \quad)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

c) Titik Asal / Titik Pusat (0,0)



$$A(2, 4) \xrightarrow{M_{(0,0)}} A'(\quad, \quad)$$

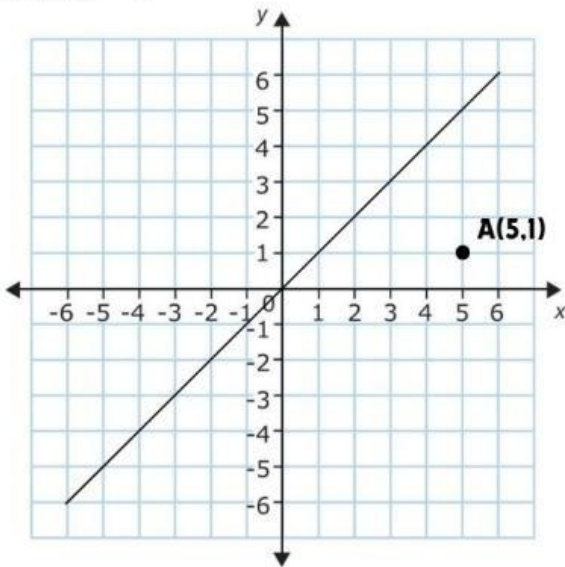
$$A(x, y) \xrightarrow{M_{(0,0)}} A'(\quad, \quad)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

Aktivitas 2

Tentukan bayangan titik koordinat $A(x, y)$ oleh refleksi (pencerminan) berikut!

d) garis $y = x$

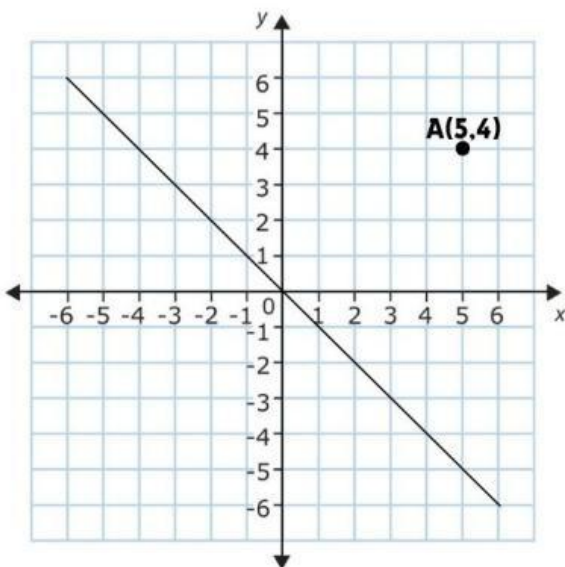


$$A(5, 1) \xrightarrow{M_{y=x}} A'(\quad, \quad)$$

$$A(x, y) \xrightarrow{M_{y=x}} A'(\quad, \quad)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

e) garis $y = -x$

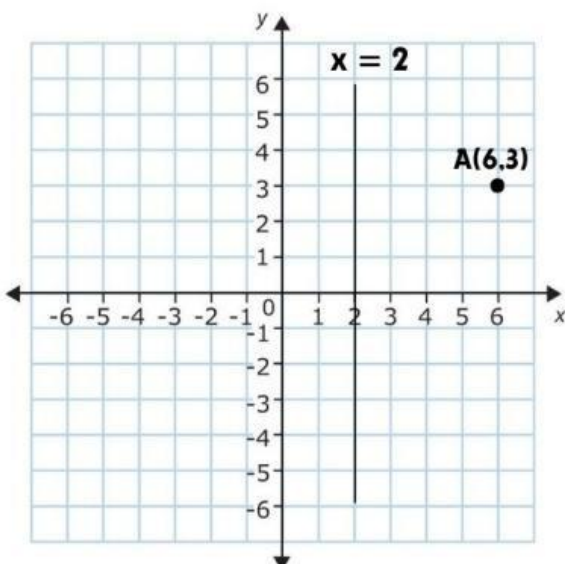


$$A(5, 4) \xrightarrow{M_{y=-x}} A'(\quad, \quad)$$

$$A(x, y) \xrightarrow{M_{y=-x}} A'(\quad, \quad)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

f) garis $x = a$



$$A(6, 3) \xrightarrow{M_{x=2}} A'(\quad, \quad)$$

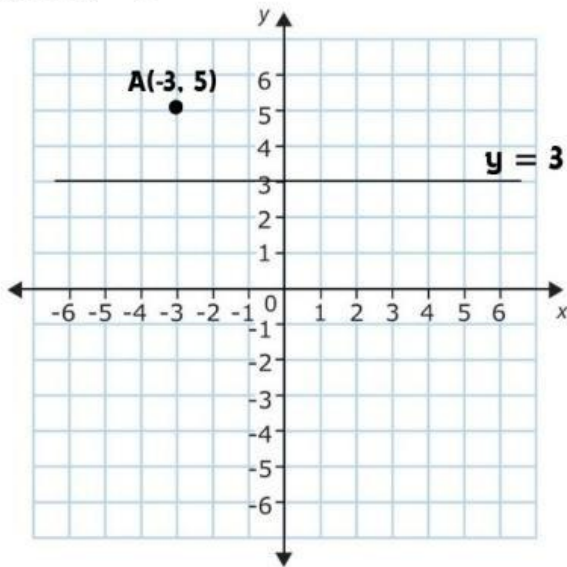
$$A(x, y) \xrightarrow{M_{x=a}} A'(2a-x, y)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} + \begin{pmatrix} 2a \\ 0 \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

Aktivitas 2

Tentukan bayangan titik koordinat $A(x, y)$ oleh refleksi (pencerminan) berikut!

g) garis $y = b$

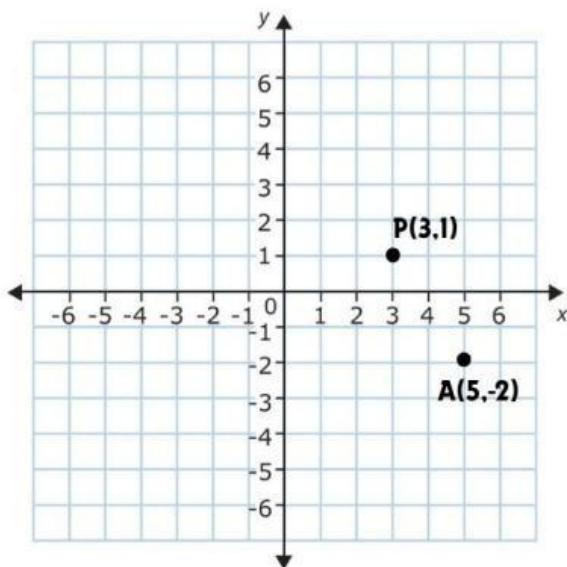


$$A(-3, 5) \xrightarrow{M_{y=3}} A'(\quad, \quad)$$

$$A(x, y) \xrightarrow{M_{y=b}} A'(x, 2b-y)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} + \begin{pmatrix} 0 \\ 2b \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

h) titik $P(a, b)$



$$A(5, -2) \xrightarrow{M_{(3,1)}} A'(\quad, \quad)$$

$$A(x, y) \xrightarrow{M_{(a,b)}} A'(2a-x, 2b-y)$$

$$\begin{pmatrix} x' \\ y' \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} + \begin{pmatrix} 2a \\ 2b \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$