

JAWAPAN

BAB 8

Lokus dalam Dua Dimensi Loci in Two Dimensions

1.

Situasi Situation	Kedudukan atau lokus titik M Position or locus of point M

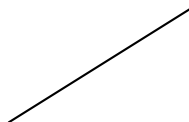
- (a) Lokus ialah satu surihan atau lintasan oleh satu set titik dalam satu satah atau ruang tiga dimensi yang memenuhi syarat-syarat tertentu.

Locus is a trail or trajectory by a set of points in a single plane or three-dimensional space that satisfies certain conditions.

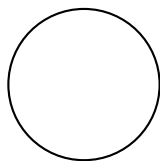
- (b) Bentuk lokus dua dimensi boleh dilihat dalam bentuk garis lurus, lengkuk dan lengkung.

The shape of two-dimensional locus can be seen in the form of straight line, arc and curve.

2. (a) Garis lurus yang selari dengan eskalato
A straight line that is parallel to the escalator



- (b) Bulatan
Circle



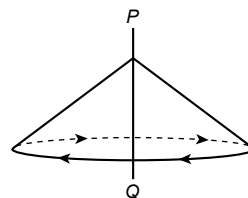
- (c) Garis lurus yang selari dengan jalan raya
A straight line that is parallel to the road



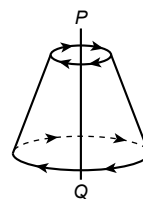
- (d) Lengkuk
An arc



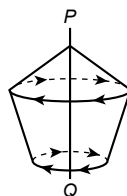
3. (a)



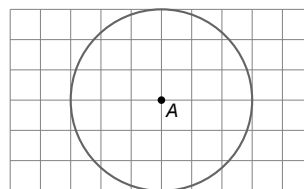
(b)



(c)

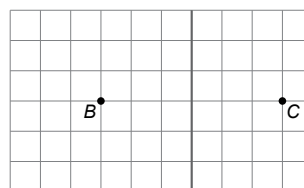


5. (a)



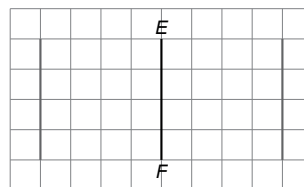
Lokus: Bulatan berpusat A
Locus: A circle with centre A

(b)



Lokus: Satu pembahagi dua sama serenjang bagi garis BC
Locus: A perpendicular bisector of the line BC

(c)

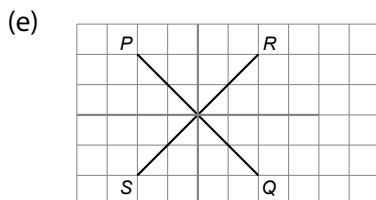


Lokus: Dua garis lurus yang selari dengan EF
Locus: Two straight lines which are parallel to EF



Lokus: Satu garis lurus yang berada di tengah-tengah KL dan MN

Locus: A straight line that is in the middle of KL and MN



Lokus: Pembahagi dua sama sudut antara PQ dan RS

Locus: Angle bisectors between PQ and RS

6. (a) Lokus bagi titik yang berjarak tetap dari satu titik tetap ialah bulatan dengan keadaan titik tetap itu ialah pusat dan jarak tetap itu ialah jejari.

The locus of points with a constant distance from a fixed point is a circle where the fixed point is the centre and the constant distance is the radius.

- (b) Lokus bagi titik yang berjarak sama dari dua titik tetap ialah pembahagi dua sama serenjang bagi garis lurus yang menyambungkan dua titik tetap itu.

The locus of points that are equidistant from two fixed points is a perpendicular bisector of the straight line connecting the two fixed points.

- (c) Lokus bagi titik yang berjarak tetap dari satu garis lurus ialah sepasang garis lurus yang selari dengan garis lurus itu.

The locus of points with a constant distance from a straight line is a pair of straight lines that are parallel to the straight line.

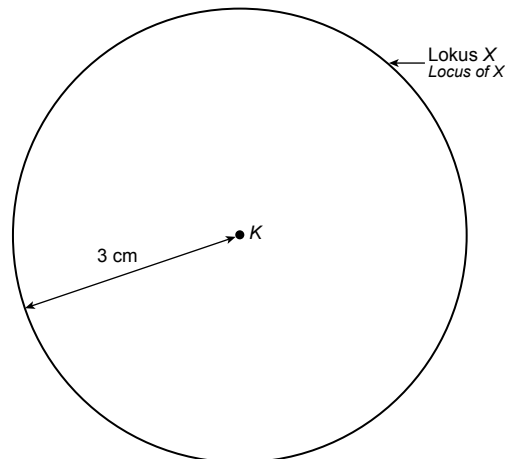
- (d) Lokus bagi titik yang berjarak sama dari dua garis lurus selari ialah satu garis lurus yang selari dan melalui titik tengah bagi kedua-dua garis lurus itu.

The locus of points that are equidistant from two parallel straight lines is a straight line that is parallel and passing through the midpoint of the two straight lines.

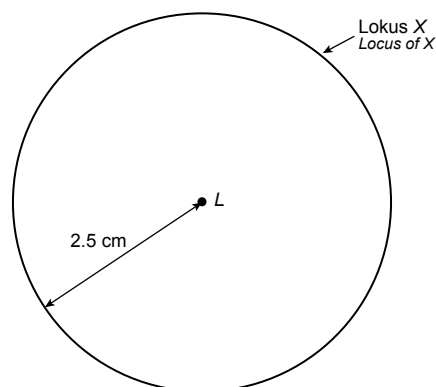
- (e) Lokus bagi titik yang berjarak sama dari dua garis lurus bersilang ialah pembahagi dua sama sudut antara dua garis lurus itu.

The locus of points that are equidistant from two intersecting straight lines is the angle bisectors between both the straight lines.

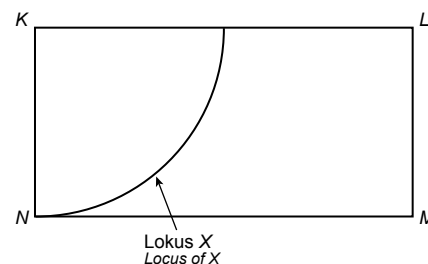
7. (a)



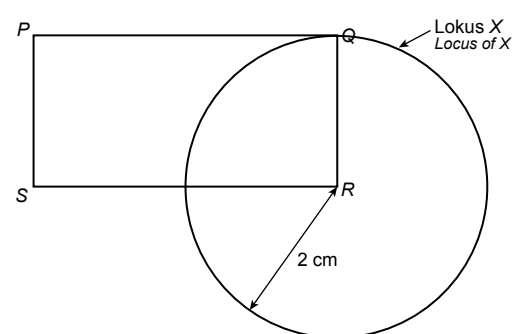
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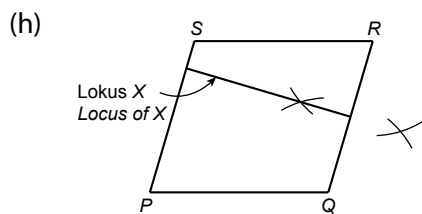
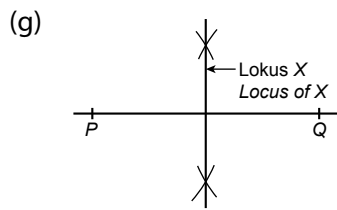
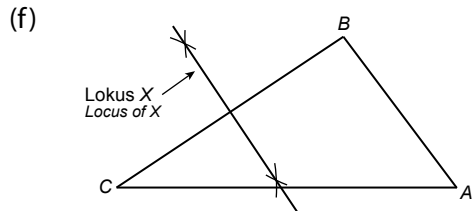
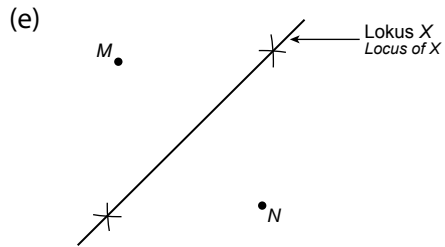


(c)

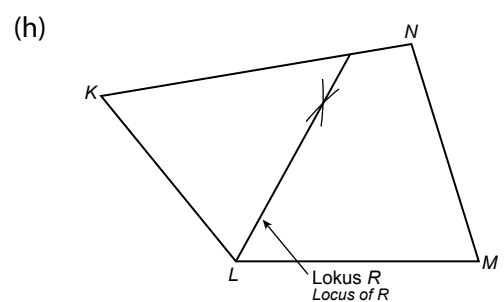
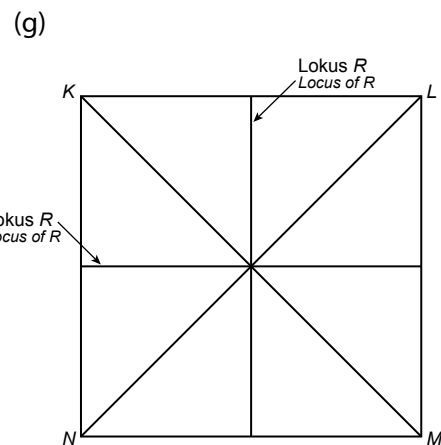
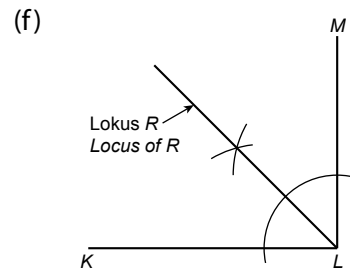
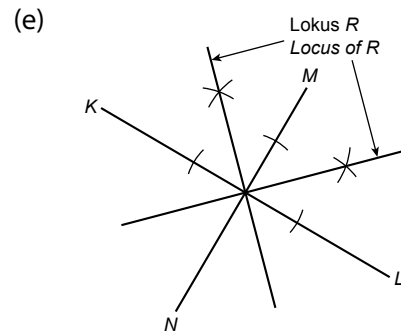
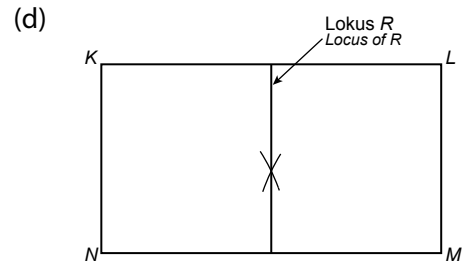
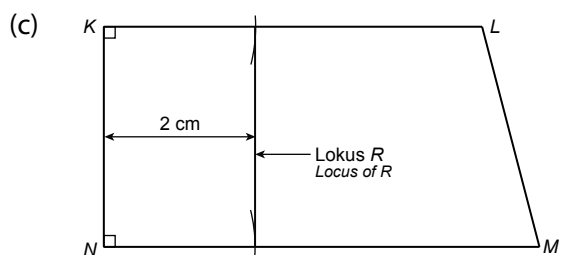
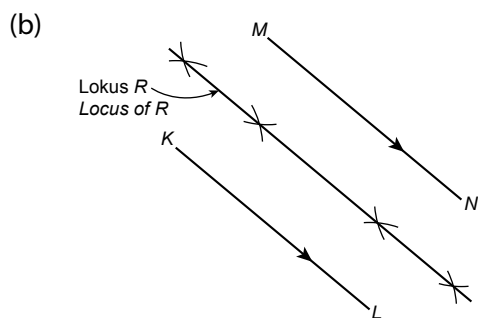
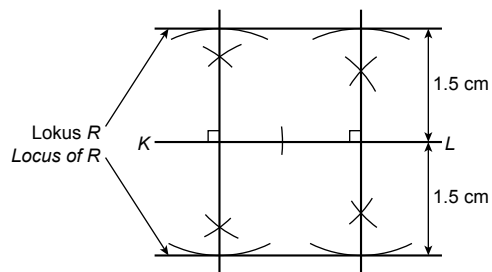


(d)



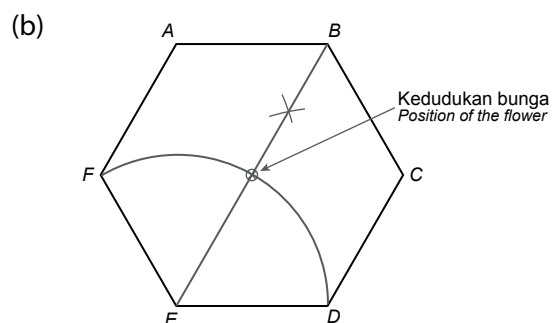
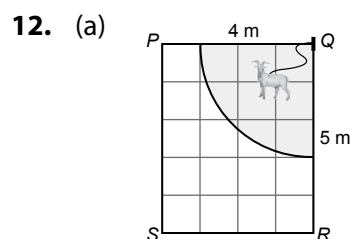
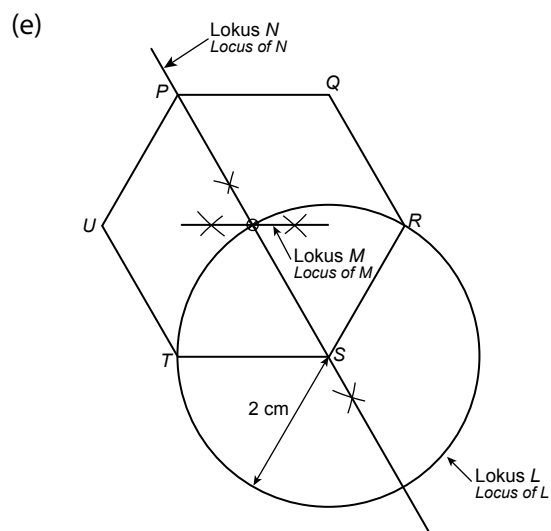
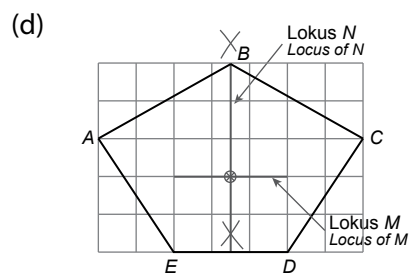
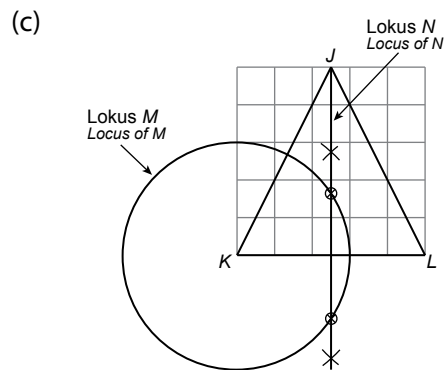
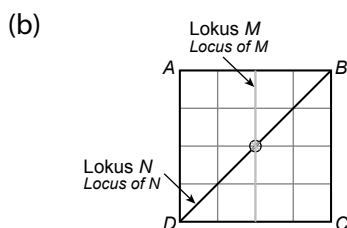
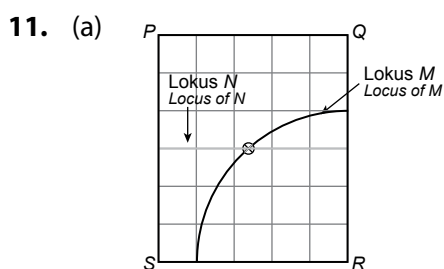


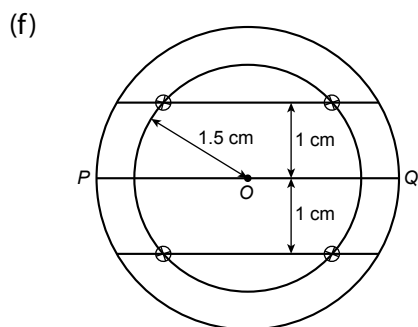
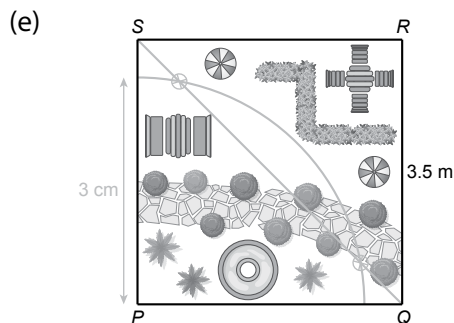
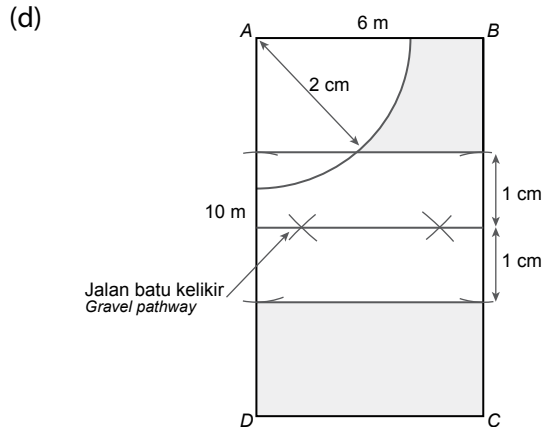
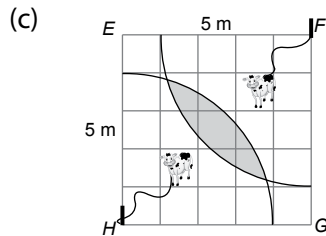
8. (a)



9.	Deskripsi <i>Description</i>	Lokus <i>Locus</i>
(a)	Lokus bagi titik yang berjarak sama dari garis AD dan garis BC . <i>Locus of points that are equidistant from line AD and line BC.</i>	EF
(b)	Lokus bagi titik yang berjarak sama dari bucu B dan bucu D . <i>Locus of points that are equidistant from vertex B and vertex D.</i>	AC
(c)	Lokus bagi titik yang berjarak sama dari garis AC dan BD . <i>Locus of points that are equidistant from lines AC and BD.</i>	EF, GH

10. (a) Lokus P sentiasa berjarak 1 cm dari titik D .
Locus of P is always 1 cm from point D .
- (b) Lokus P sentiasa berjarak sama dari dua garis bersilang, AD dan DC . (atau AB dan BC) (atau dua titik, A dan C)
Locus of P is always equidistant from two intersecting lines, AD and DC . (or AB and BC) (or two points, A and C)
- (c) Lokus P sentiasa berjarak sama dari dua garis selari, AB dan DC .
Locus of P is always equidistant from two parallel lines, AB and DC .
- (d) Lokus P sentiasa berjarak 1.5 cm dari garis AB .
Locus of P is always 1.5 cm from line AB .
- (e) Lokus P sentiasa berjarak sama dari dua garis bersilang, AC dan BD .
Locus of P is always equidistant from two intersecting lines, AC and BD .





Power PT3

Bahagian A

- Lokus bagi titik P berjarak tetap dari satu titik tetap.
The locus of the point P is of a fixed distance from a fixed point.
Jawapan / Answer: **A**
- B berjarak sama dari PQ dan RS .
 B is equidistant from PQ and RS .
Jawapan / Answer: **B**

- Diberi $JK = 7$ cm, T berjarak sama dari J dan K .
Given $JK = 7$ cm, T is equidistant from J and K .

$$\text{Jarak di antara } T \text{ dan } J = \frac{7 \text{ cm}}{2} = 3.5 \text{ cm}$$

Distance between T and J

Jawapan / Answer: **A**

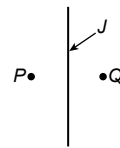
- X : berjarak sama dari J dan L
equidistant from J and L

Y : berjarak tetap dari O
fixed distance from O

Titik persilangan X dan Y : K dan M
Points of intersection of X and Y : K and M

Jawapan / Answer: **D**

-



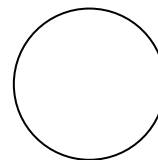
Jawapan / Answer: **D**

- D** paling sesuai untuk memasang nozel bagi memastikan semburan air dapat menyirami kebun secara maksimum.
 D is the most suitable location to install the nozzle to make sure the water sprinkler can water the garden at maximum.

Jawapan / Answer: **D**

Bahagian B

- (a)



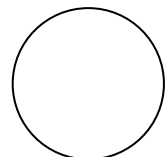
- (c)



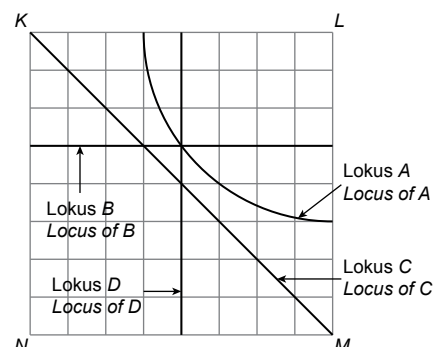
- (b)



- (d)



-



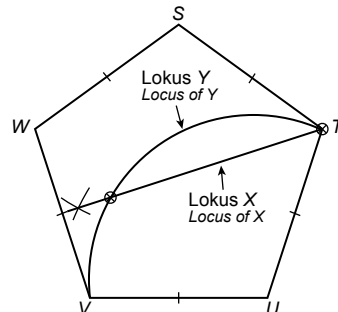
	Huraian Description	Lokus Locus
(a)	Lokus bagi suatu titik yang bergerak dengan keadaan jaraknya sentiasa 3 unit dari garis KL. <i>Locus of a moving point which is always 3 units from line KL.</i>	B
(b)	Lokus bagi suatu titik yang bergerak dengan keadaan jaraknya sentiasa 5 unit dari titik L. <i>Locus of a moving point which is always 5 units from point L.</i>	A
(c)	Lokus bagi suatu titik yang bergerak dengan keadaan jaraknya sentiasa sama dari garis KN dan garis LM. <i>Locus of a moving point which is always equidistant from line KN and line LM.</i>	D
(d)	Lokus bagi suatu titik yang bergerak dengan keadaan jaraknya sentiasa sama dari titik L dan titik N. <i>Locus of a moving point which is always equidistant from point L and point N.</i>	C

9. (a) Lokus bagi suatu titik yang berjarak tetap dari satu titik tetap ialah bulatan.
Locus of a point which is of constant distance from a fixed point is a circle.
- (b) Lokus bagi suatu titik yang berjarak sama dari dua titik tetap ialah pembahagi dua sama serenjang.
Locus of a point which is equidistant from two fixed points is a perpendicular bisector.
- (c) Lokus bagi suatu titik yang berjarak tetap dari satu garis lurus ialah garis selari.
Locus of a point which is of constant distance from a straight line is parallel lines.
- (d) Lokus bagi suatu titik yang berjarak sama dari dua garis lurus yang bersilang ialah pembahagi dua sama sudut.
Locus of a point which is equidistant from two intersecting straight lines is an angle bisector.

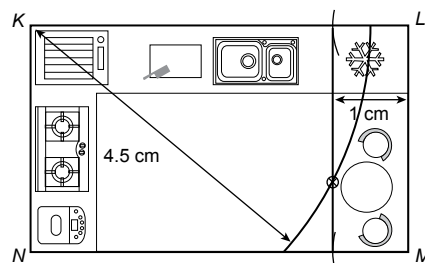
Bahagian C

10. (a) (i) Bulatan / Circle
(ii) Sepasang garis selari
A pair of parallel lines

(b)

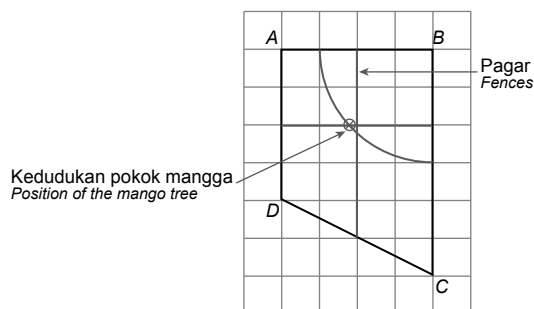


(c)



Power KBAT

1.



2.

