

PENYELESAIAN LENGKAP

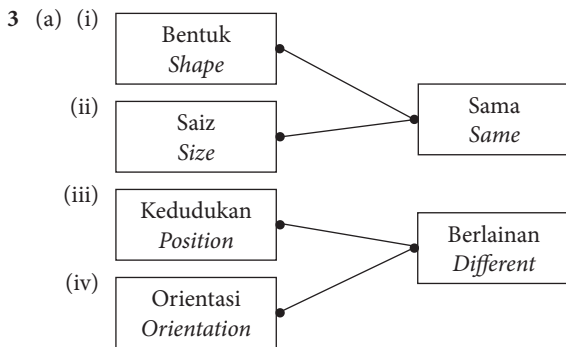
PRAKTIK 11

Praktis Formatif

- 1 A Benar/True
 B Benar/True
 C Benar/True
 D Palsu/False

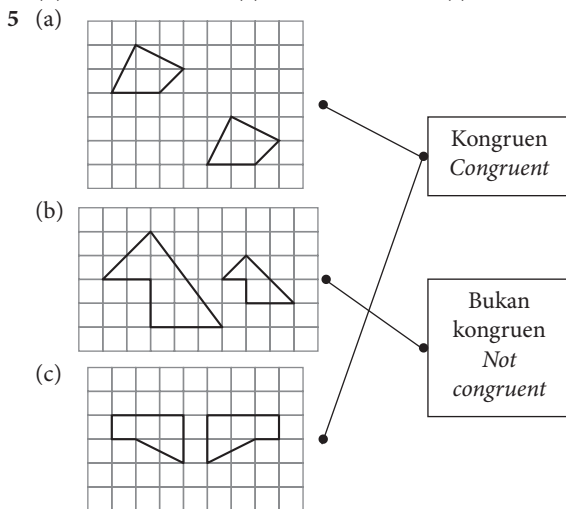
Jawapan/Answer: D

- 2 (a) Bentuk, Orientasi
 Shape, Orientation
 (b) Saiz, Kedudukan
 Size, Position

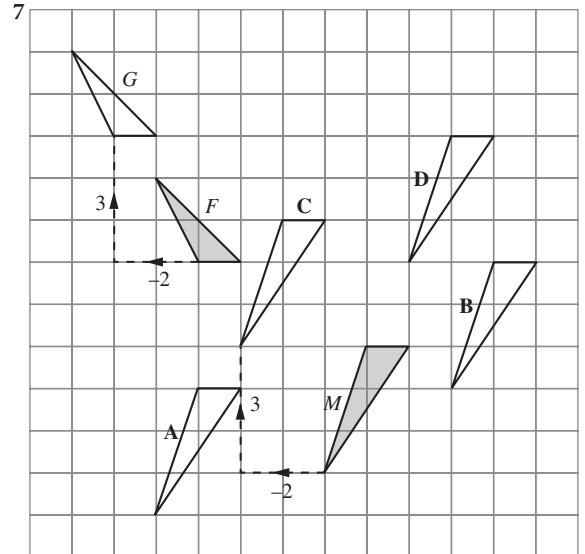


- (b) Padanan titik-titik P , Q dan R dengan P' , Q' dan R' adalah satu dengan satu.
 The correspondence of points P , Q and R with P' , Q' and R' is one-to-one.

- 4 (a) ✓ (b) ✗ (c) ✓
 (d) ✓ (e) ✗ (f) ✗



- 6 (a) Kecerupaan/Similarity
 (b) Kekongruenan/Congruency



Translasi itu ialah $\begin{pmatrix} -2 \\ 3 \end{pmatrix}$.

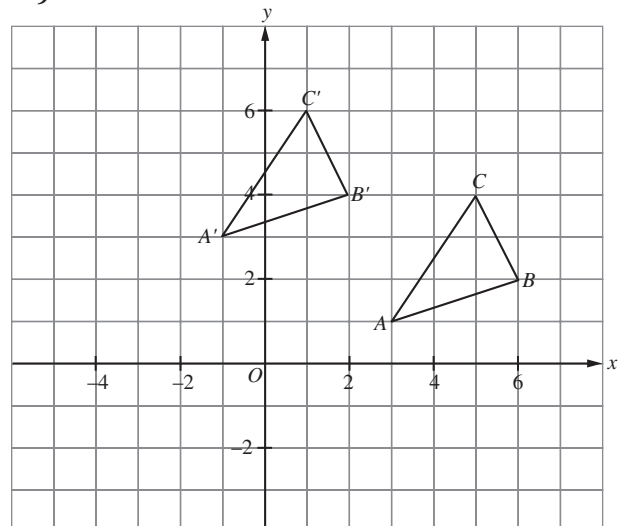
The translation is $\begin{pmatrix} -2 \\ 3 \end{pmatrix}$.

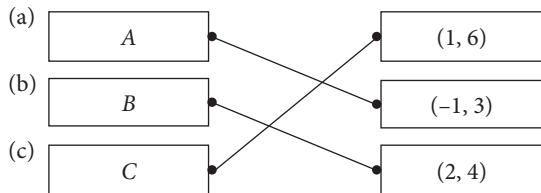
Segi tiga C ialah imej bagi segi tiga M di bawah translasi itu.

Triangle C is the image of triangle M under the translation.

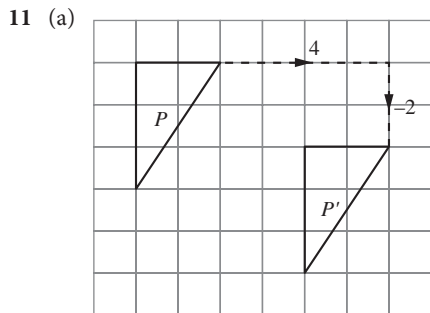
Jawapan/Answer: C

- 8 (a) Tidak/No (b) Ya/Yes (c) Ya/Yes
 9

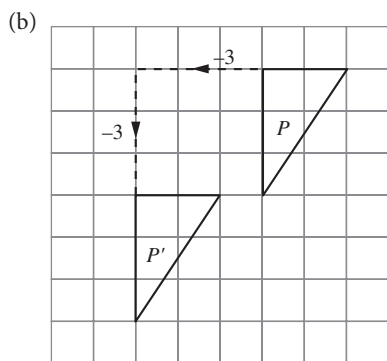




10 (a) $\begin{pmatrix} 5 \\ 3 \end{pmatrix}$ (b) $\begin{pmatrix} 3 \\ -4 \end{pmatrix}$

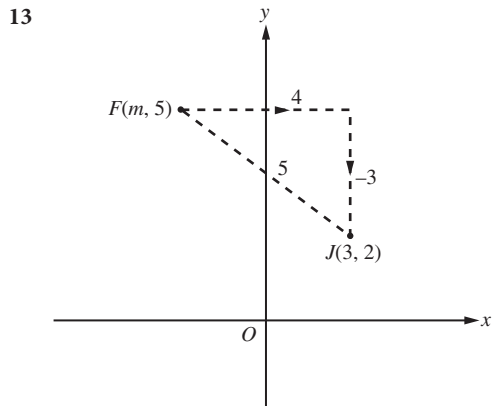


(i) Bergerak 4 unit ke kanan diikuti dengan 2 unit ke bawah.
Moves 4 units to the right followed by 2 units downward.



(ii) Bergerak 3 unit ke kiri diikuti dengan 3 unit ke bawah.
Moves 3 units to the left followed by 3 units downward.

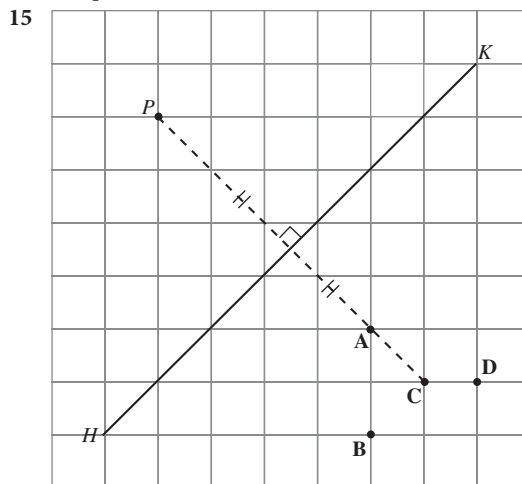
12 $\begin{pmatrix} -5 \\ a \end{pmatrix} + \begin{pmatrix} 3 \\ 5 \end{pmatrix} = \begin{pmatrix} b \\ 6 \end{pmatrix}$
 $\begin{pmatrix} -5 + 3 \\ a + 5 \end{pmatrix} = \begin{pmatrix} b \\ 6 \end{pmatrix}$
 $\begin{pmatrix} -2 \\ a + 5 \end{pmatrix} = \begin{pmatrix} b \\ 6 \end{pmatrix}$
 $a + 5 = 6$
 $a = 1$
 $b = -2$



Translasi itu ialah $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$.

The translation is $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$.

14 Bentuk A ialah imej bagi X di bawah suatu pantulan.
Figure A is the image of X under a reflection.
 Jawapan/Answer: A



Titik C ialah imej bagi titik P di bawah suatu pantulan pada garis HK.

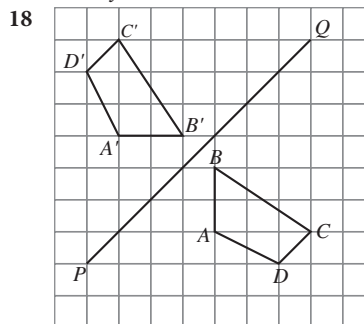
Point C is the image of point P under a reflection on the line HK.

Jawapan/Answer: C

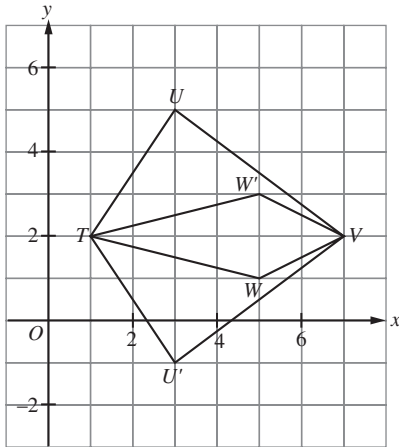
16 (a) ✓ (c) ✓

17 (a) Pantulan pada paksi-y.
Reflection in the y-axis.

(b) Pantulan pada paksi-x.
Reflection in the x-axis.

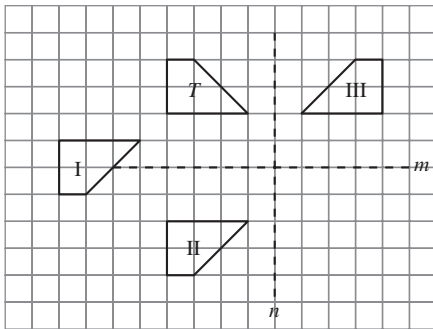


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	Titik Point	Imej Image
(a)	T	(7, 2)
(b)	U	(5, 3)
(c)	V	(1, 2)
(d)	W	(3, -1)

20



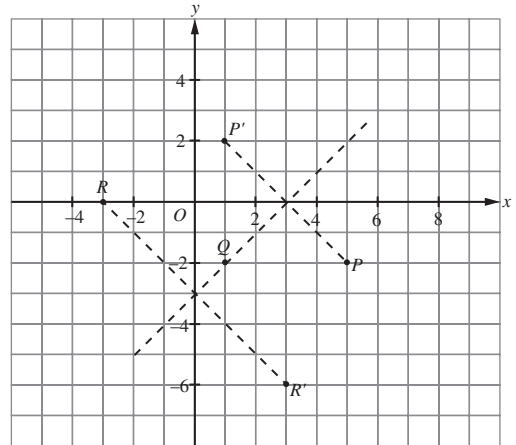
Trapezium II dan trapezium III ialah imej bagi trapezium T di bawah suatu pantulan masing-masing pada garis m dan n .

\therefore Imej-imej trapezium T di bawah suatu pantulan tertentu ialah II dan III.

Trapezium II and trapezium III are images of trapezium T under a reflection in the lines m and n respectively.

\therefore *The images of trapezium T under a certain reflection are II and III.*

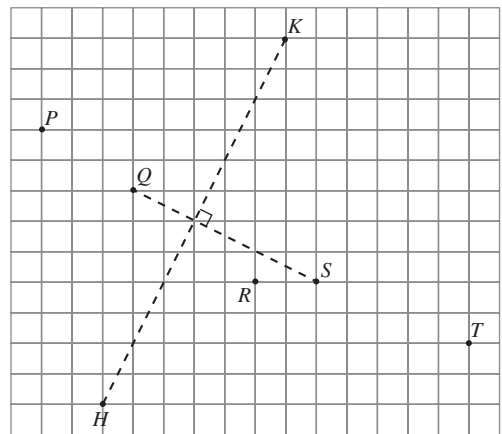
21



Koordinat imej bagi titik R ialah (3, -6).

The coordinates of the image of point R are (3, -6).

22



Paksi pantulan itu ialah garis QS.

The axis of reflection is the line QS.

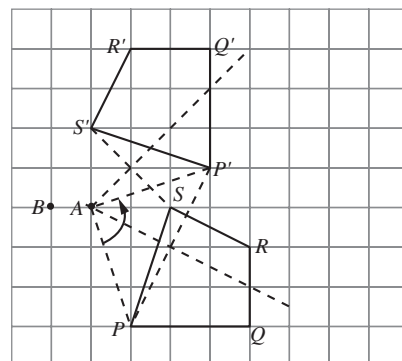
Jawapan/Answer: **B**

23 (a) Ya/Yes

(b) Tidak/No

(c) Ya/Yes

24



(a) Pusat putaran ialah titik A.

Centre of rotation is point A.

(b) $\angle PAP' = \angle QAQ' = \angle RAR' = \angle SAS' = 90^\circ$

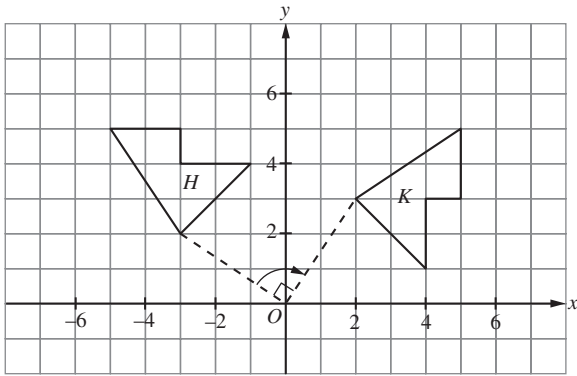
Sudut putaran ialah 90° .

Angle of rotation is 90° .

(c) Arah putaran ialah lawan arah jam.

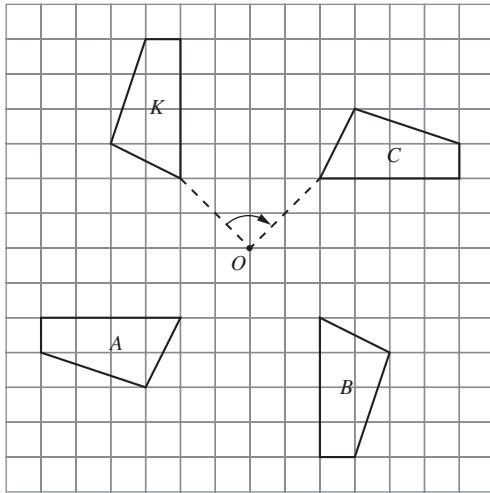
Direction of rotation is anticlockwise.

25



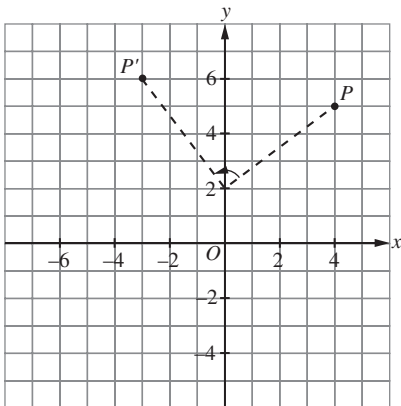
Jawapan/Answer: A

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Imej bagi sisi empat K ialah sisi empat C.
The image of quadrilateral K is quadrilateral C.

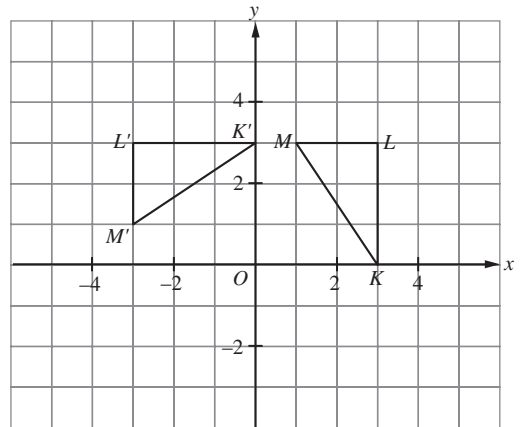
27



Koordinat imej bagi titik P ialah (-3, 6).
The coordinates of the image of point P are (-3, 6).

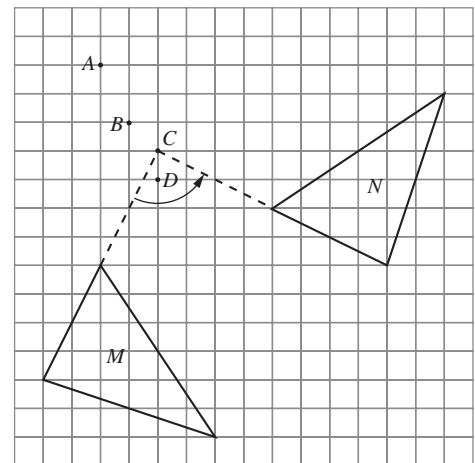
Jawapan/Answer: B

28



Titik/Point	Imej/Image
(a) K	(-3, 3)
(b) L	(-3, 1)
(c) M	(0, 3)

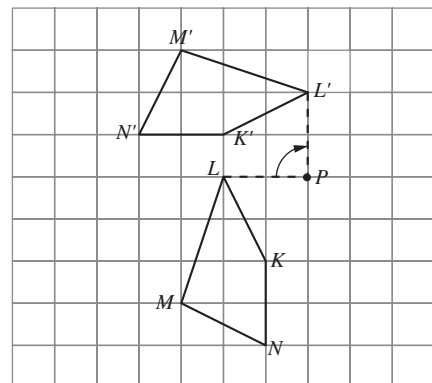
29



Pusat putaran itu ialah C.
The centre of the rotation is C.

Jawapan/Answer: C

30



- A Benar/True
- B Benar/True
- C Benar/True
- D Palsu/False

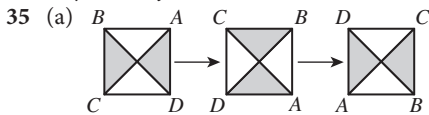
Jawapan/Answer: D

- 31 (a) $PQ = P'Q'$, $PR = P'R'$, $QR = Q'R'$
 (b) Jarak di antara dua titik pada objek dan imej di bawah transformasi itu adalah sama.
The distance between two points on the object and the image under the transformation is the same.
 (c) Suatu pantulan pada garis lurus $x = 4$.
A reflection in the straight line $x = 4$.
- 32 (a) Putaran/Rotation
 (b) (i) Saiz P dan Q adalah sama.
Sizes of P and Q are the same.
 (ii) Bentuk P dan Q adalah sama.
Shapes of P and Q are the same.
 (c) Objek P dan imej Q di bawah isometri itu adalah kongruen.
Object P and image Q under the isometry are congruent.

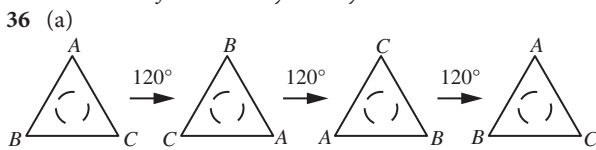
- 33 (a) Translasi/Translation $\vec{AA'}$

(b) $60^\circ + x = 140^\circ$
 $x = 80^\circ$
 $\angle A'B'C' = \angle ABC$
 $y = 180^\circ - 140^\circ$
 $= 40^\circ$

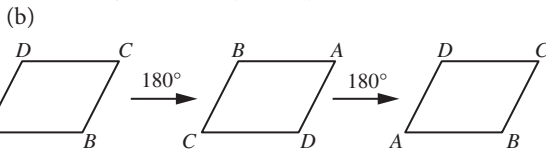
- 34 Objek B /Object B



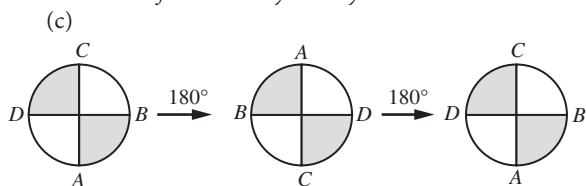
- (b) Peringkat simetri putaran = 4
Order of rotational symmetry = 4



Peringkat paksi simetri = 3
Order of rotational symmetry = 3

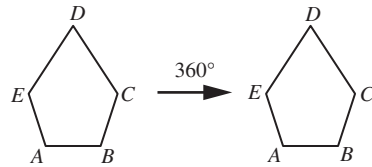


Peringkat paksi simetri = 2
Order of rotational symmetry = 2



Peringkat paksi simetri = 2
Order of rotational symmetry = 2

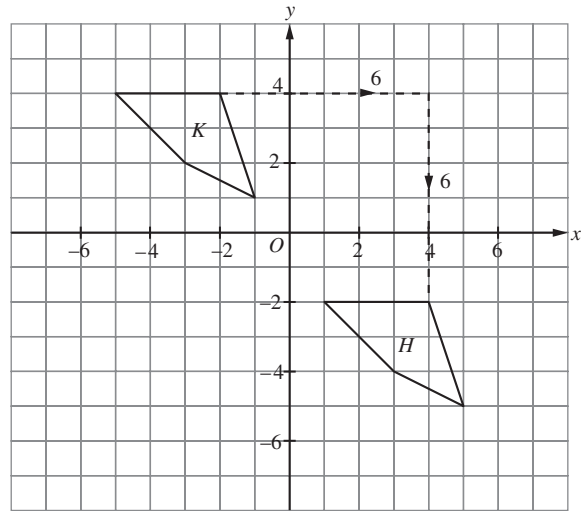
(d)



Peringkat paksi simetri = 1
Order of rotational symmetry = 1

Praktis Sumatif

1

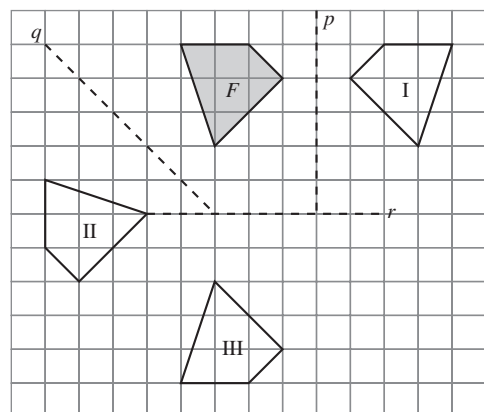


Translasi T itu ialah $\begin{pmatrix} 6 \\ -6 \end{pmatrix}$.

The translation T is $\begin{pmatrix} 6 \\ -6 \end{pmatrix}$.

Jawapan/Answer: C

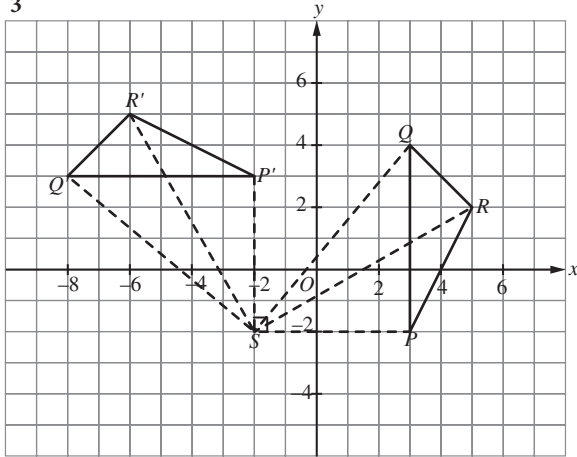
2



Bentuk I, II dan III ialah imej bagi bentuk F di bawah suatu pantulan masing-masing pada garis p , q dan r .
The figures I, II and III are the images of figure F under a reflection in the lines p , q and r respectively.

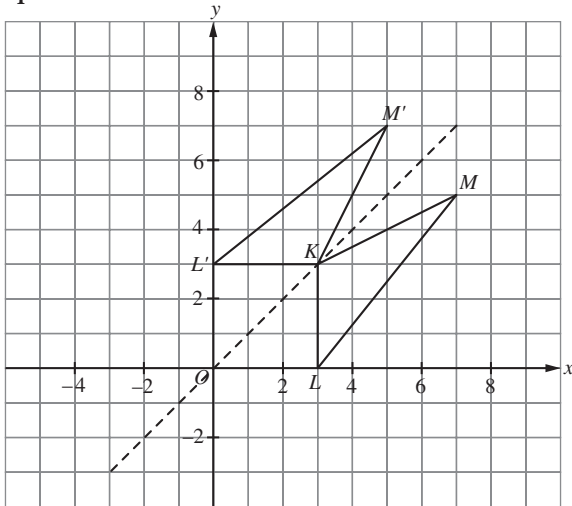
Jawapan/Answer: D

3



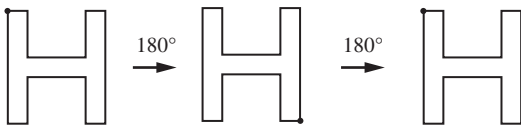
$\angle PSP' = \angle QSQ' = \angle RSR' = 90^\circ$
 Koordinat bagi titik S ialah $(-2, -2)$.
 The coordinates of point S are $(-2, -2)$.
 Jawapan/Answer: D

4



Koordinat imej bagi titik M ialah $(5, 7)$.
 The coordinates of the image of point M are $(5, 7)$.
 Jawapan/Answer: D

5

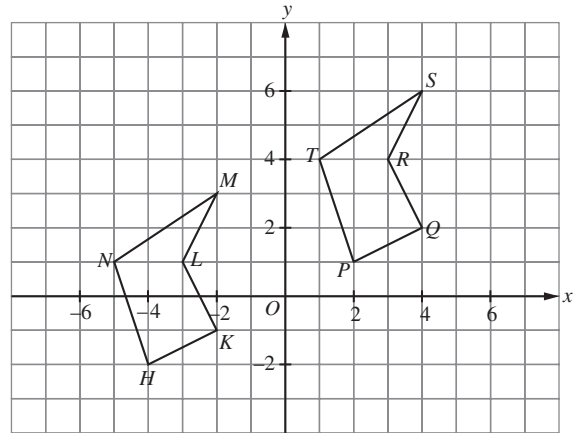


Peringkat simetri putaran ialah 2.
 The order of rotational symmetry is 2.
 Jawapan/Answer: B

- 6 (a) Bentuk dan saiz objek adalah sama.
 Kedudukan dan orientasi objek adalah berlainan.
 Shape and size of object are the same.
 Position and orientation of object are different.
- (b) (i) Padanan titik imej bagi titik D ialah titik S.
 The correspondence of the point of image of point D is point S.

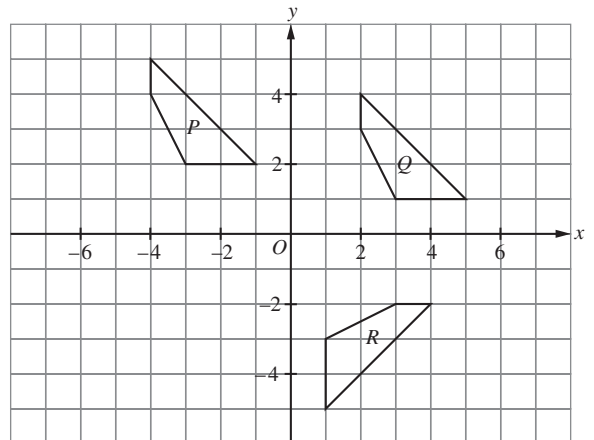
- (ii) Padanan titik imej bagi titik U ialah titik F.
 The correspondence of the point of image of point U is point F.
- (c) Poligon ABCDEF dan poligon PQRSTU adalah kongruen.
 Polygons ABCDEF and PQRSTU are congruent.

- 7 (a) Translasi/Translation $T = \begin{pmatrix} 6 \\ 3 \end{pmatrix}$
 $a = 6, b = 3$
- (b)



$H(-4, -2), K(-2, -1), L(-3, 1), M(-2, 3), N(-5, 1)$

- 8 (a) (i) Translasi itu ialah $\begin{pmatrix} 6 \\ -1 \end{pmatrix}$.
 The translation is $\begin{pmatrix} 6 \\ -1 \end{pmatrix}$.
- (ii) Kesan translasi itu terhadap hubungan antara jarak bagi dua titik pada objek dan imej adalah sama.
 The effect of the translation on the relation between the distances of two points on the object and the image are the same.
- (b)



- (c) Isometri itu ialah suatu putaran.
 The isometry is a rotation.