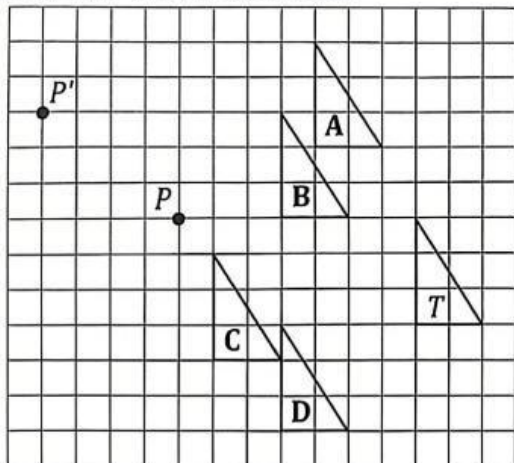


Bahagian A

- 1 Rajah berikut menunjukkan sebuah segi tiga T dan P' ialah imej bagi P di bawah suatu translasi.

The following diagram shows a triangle T and P' is an image of P under a translation.



Antara segi tiga A, B, C dan D, yang manakah ialah imej bagi segi tiga T di bawah translasi yang sama?

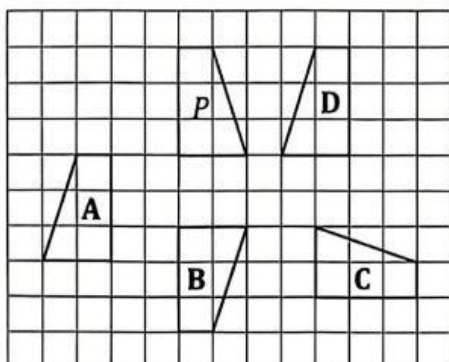
Which of the following triangles A, B, C and D, is the image of triangle T under the same translation?

- 2 $P'(-2, 12)$ ialah imej bagi $P(2, 7)$ di bawah suatu translasi. Cari koordinat imej Q' bagi $Q(-3, 1)$ di bawah translasi yang sama.
 $P'(-2, 12)$ is the image of $P(2, 7)$ under a translation. Find the coordinates of the image Q' of $Q(-3, 1)$ under the same translation.

- A $(-1, 6)$ C $(-7, 6)$
 B $(-5, 8)$ D $(6, 7)$

- 3 Rajah berikut menunjukkan lima buah trapezium.

The following diagram shows five trapeziums.

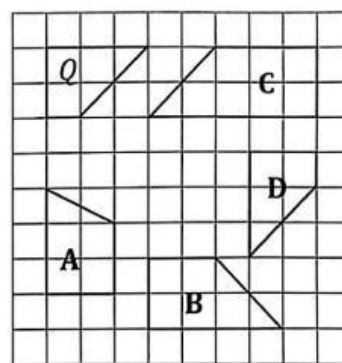


Antara trapezium A, B, C dan D, yang manakah **bukan** imej bagi P di bawah suatu pantulan?

Which of the following trapeziums A, B, C and D, is **not** an image of P under a reflection?

- 4 Rajah berikut menunjukkan lima buah trapezium.

The following diagram shows five trapeziums.

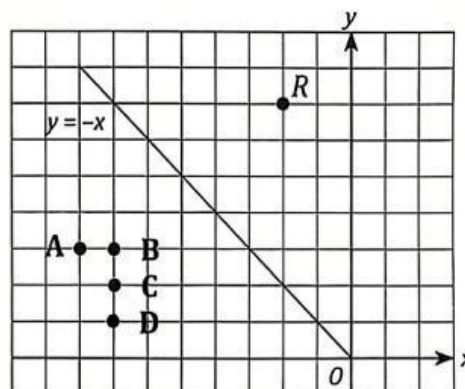


Antara trapezium A, B, C dan D, yang manakah adalah kongruen kepada trapezium Q ?

Which of the following trapeziums A, B, C and D, is congruent to trapezium Q ?

- 5 Rajah berikut menunjukkan garis lurus $y = -x$ dilukis pada satah Cartes.

The following diagram shows straight line $y = -x$ drawn on a Cartesian plane.



Antara titik A, B, C dan D, yang manakah ialah imej bagi titik R di bawah pantulan pada garis $y = -x$?

Which of the points A, B, C and D, is the image of point R under the reflection in the line $y = -x$?

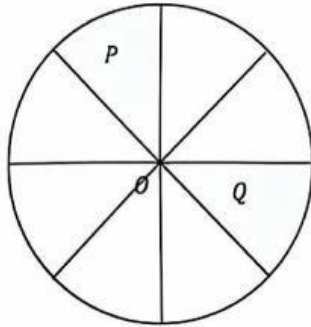
- 6 $Q(3, h)$ ialah imej bagi $P(g, -1)$ di bawah suatu pantulan pada garis $y = 2$. Cari nilai g dan nilai h .

$Q(3, h)$ is the image of $P(g, -1)$ under a reflection in the line $y = 2$. Find the value of g and of h .

- A $g = 3, h = 4$ C $g = 5, h = 3$
B $g = 3, h = 5$ D $g = 5, h = 6$

- 7 Rajah berikut menunjukkan sebuah bulatan yang berpusat O dibahagi sama rata kepada lapan bahagian.

The following diagram shows a circle with centre O which is equally divided into eight sections.



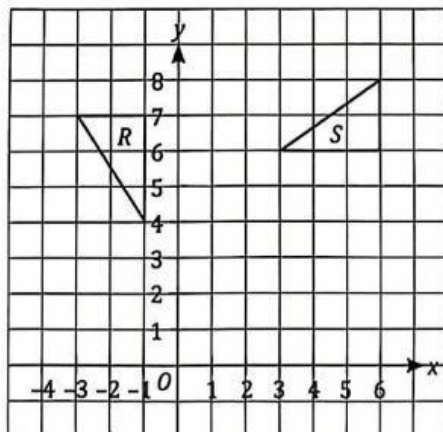
Q ialah imej bagi P di bawah suatu putaran ikut arah jam pada pusat O . Tentukan sudut putaran.

Q is the image of P under a clockwise rotation at centre O . Determine the angle of rotation.

- A 90° C 180°
B 135° D 225°

- 8 Rajah berikut menunjukkan S ialah imej bagi objek R di bawah suatu putaran pada satah Cartes.

The following diagram shows S is the image of object R under a rotation on a Cartesian plane.



Cari koordinat pusat putaran bagi transformasi di atas.

Find the coordinates of the centre of rotation for the transformation above.

- A $(1, 3)$ C $(2, 2)$
B $(1, 8)$ D $(2, 3)$

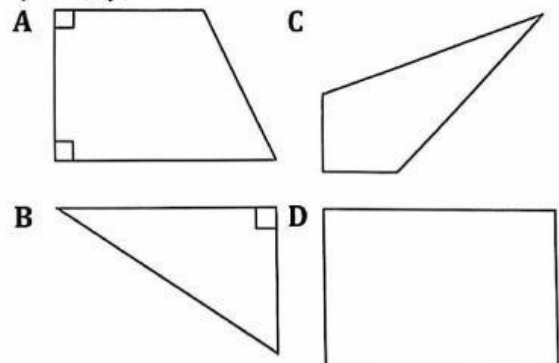
- 9 Titik $P(5, 2)$ diputarakan 90° dalam arah lawan jam pada pusat asalan. Cari koordinat bagi imej P .

Point $P(5, 2)$ is rotated 90° anticlockwise about the origin. Find the coordinates of the image of P .

- A $(-2, 5)$
B $(-1, 6)$
C $(2, -5)$
D $(1, -6)$

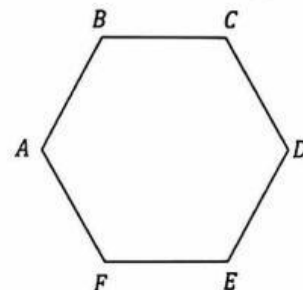
- 10 Antara objek berikut, yang manakah mempunyai simetri putaran?

Which of the following objects has rotational symmetry?



- 11 Rajah berikut menunjukkan sebuah heksagon sekata.

The following diagram shows a regular hexagon.



Antara berikut, yang manakah betul mengenai peringkat simetri putaran jika B berada di kedudukan D ?

Which of the following is correct about the rotational symmetry if B is at position D ?

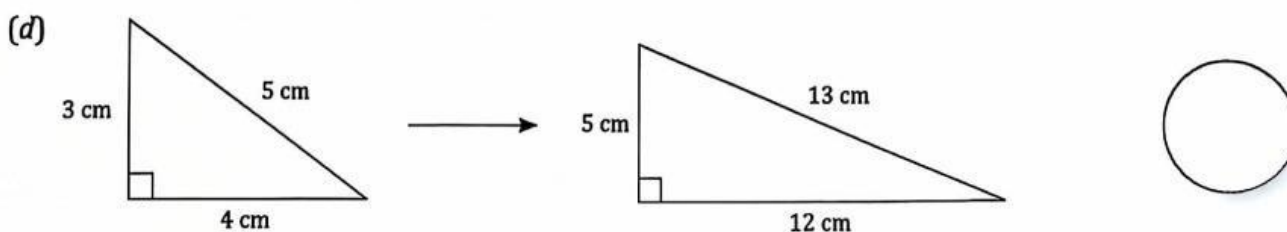
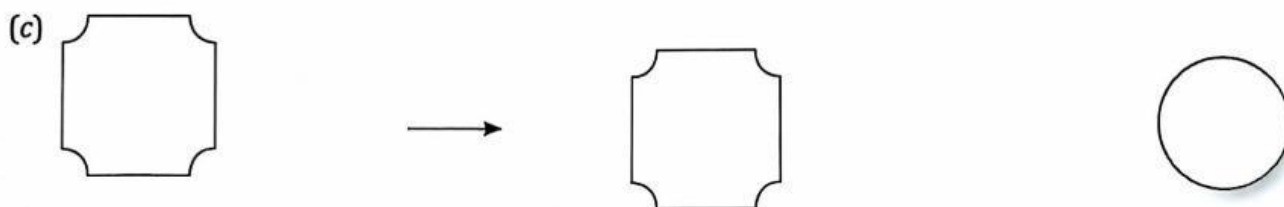
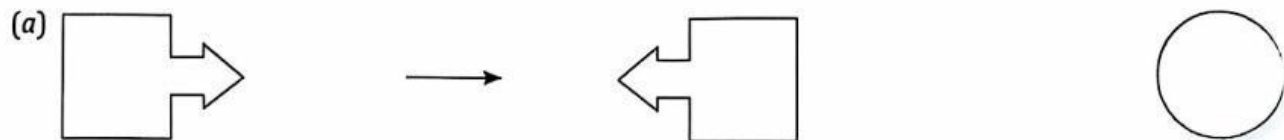
	Ikut arah jam Clockwise	Lawan arah jam Anticlockwise
A	2	3
B	2	4
C	3	3
D	4	2

Bahagian B

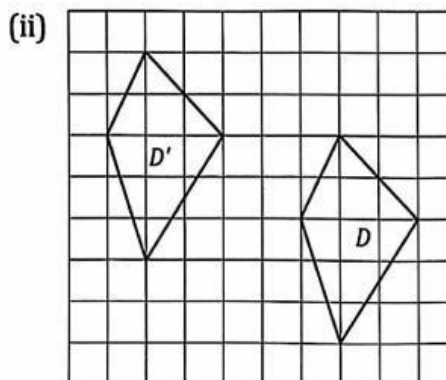
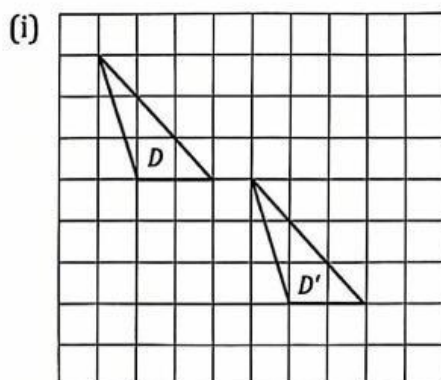
- 1 Tandakan (✓) bagi transformasi dan (X) bagi bukan transformasi.
Mark (✓) for the transformation and (X) for not a transformation.

[4 markah/ marks]

Jawapan/ Answer:



- 2 (a) Dalam rajah berikut, D' ialah imej bagi D di bawah suatu translasi. Nyatakan translasi tersebut.
In the following diagram, D' is the image of D under a translation. State the translation.



[2 markah/ marks]

Jawapan/ Answer:

(i)

(ii)