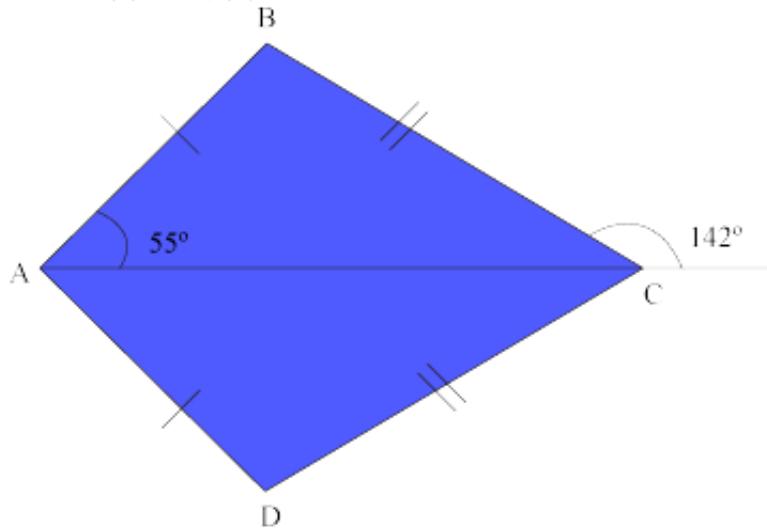


**Eighth Grade - Geometry**

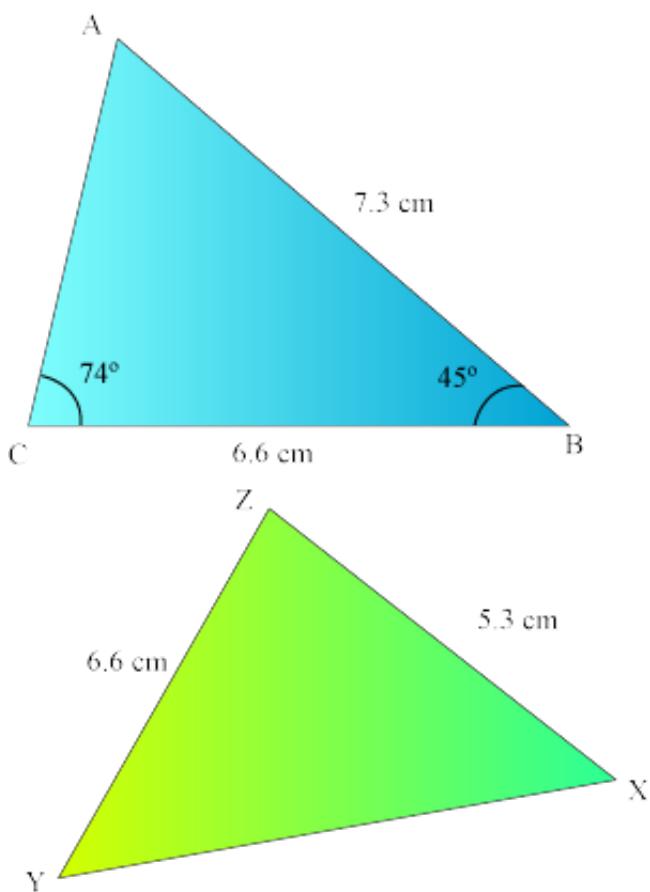
1) Given that the two triangles ABC and ADC below are congruent. Find

Find (a)  $\angle ABC$ , (b)  $\angle ACD$



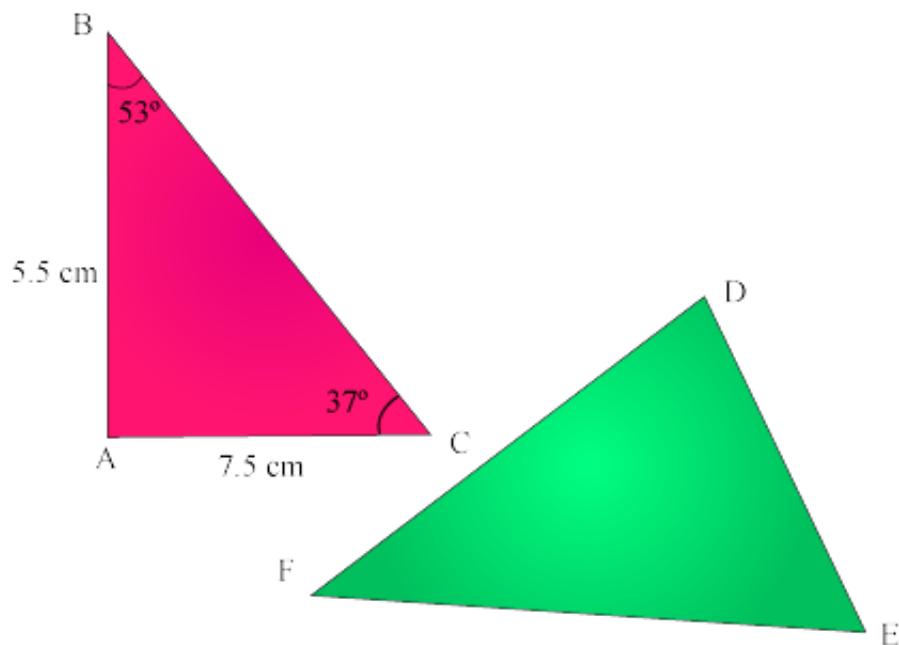
- a)  $84^\circ$ , b)  $37^\circ$
- a)  $81^\circ$ , b)  $32^\circ$
- a)  $82^\circ$ , b)  $35^\circ$
- a)  $87^\circ$ , b)  $38^\circ$

2) Given that  $\triangle ABC$  is congruent to  $\triangle XYZ$  as shown below (a) find the length of side XY, (b) find  $\angle YXZ$ .



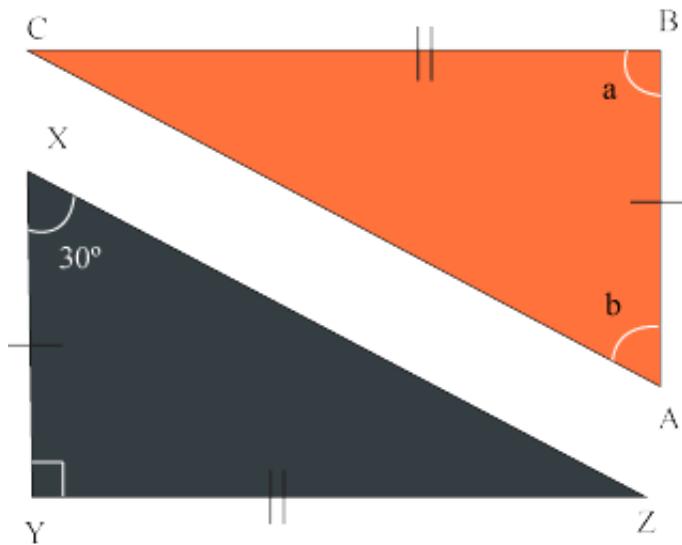
- a) 7.4 cm, b)  $51^\circ$
- a) 6.4 cm, b)  $71^\circ$
- a) 8.3 cm, b)  $81^\circ$
- a) 7.3 cm, b)  $61^\circ$

3) Given below  $\triangle ABC$  is congruent to  $\triangle DEF$ , find (a) the length of side DF, (b)  $\angle EDF$



- a) 6.5 cm, b)  $60^\circ$
- a) 7.5 cm, b)  $90^\circ$
- a) 5.3 cm, b)  $70^\circ$
- a) 8.2 cm, b)  $80^\circ$

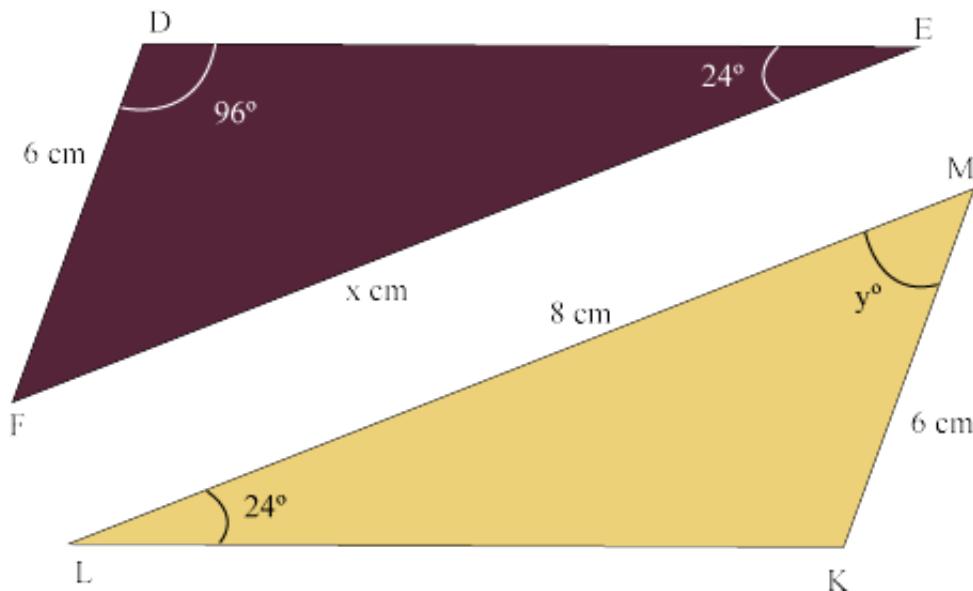
4)  $\triangle XYZ$  is congruent to  $\triangle ABC$ . Find ?a and ?b



- ?a =  $90^\circ$  & ?b =  $30^\circ$
- ?a =  $70^\circ$  & ?b =  $10^\circ$
- ?a =  $50^\circ$  & ?b =  $40^\circ$
- ?a =  $60^\circ$  & ?b =  $20^\circ$

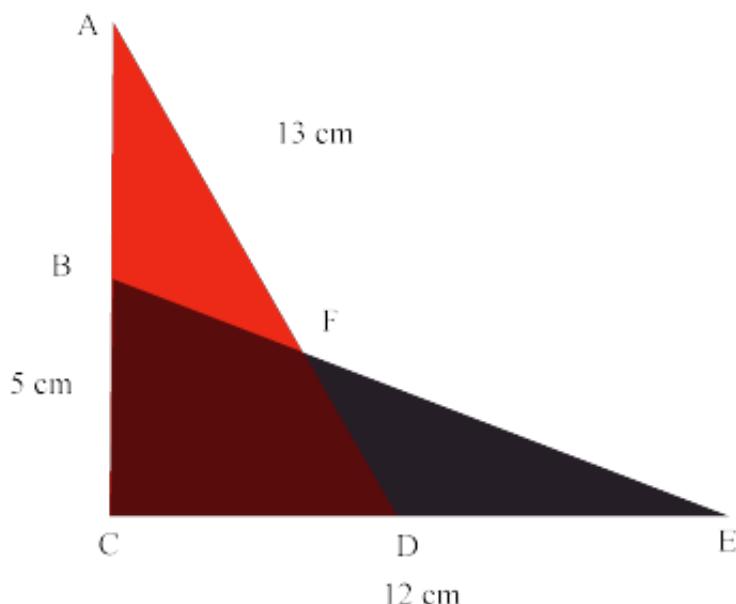


5) Given that  $\triangle DEF$  and  $\triangle KLM$  in the diagram below are congruent, find the values of  $x$  and  $y$ .



- $x = 6\text{cm}, y = 50^\circ$
- $x = 7\text{cm}, y = 10^\circ$
- $x = 7\text{cm}, y = 70^\circ$
- $x = 8\text{cm}, y = 60^\circ$

6)  $\triangle ACD$  is congruent to  $\triangle ECB$ .  $CE = 12\text{ cm}$ ,  $AD = 13\text{ cm}$  and  $BC = 5\text{ cm}$ . Find the length of  $AB$ .

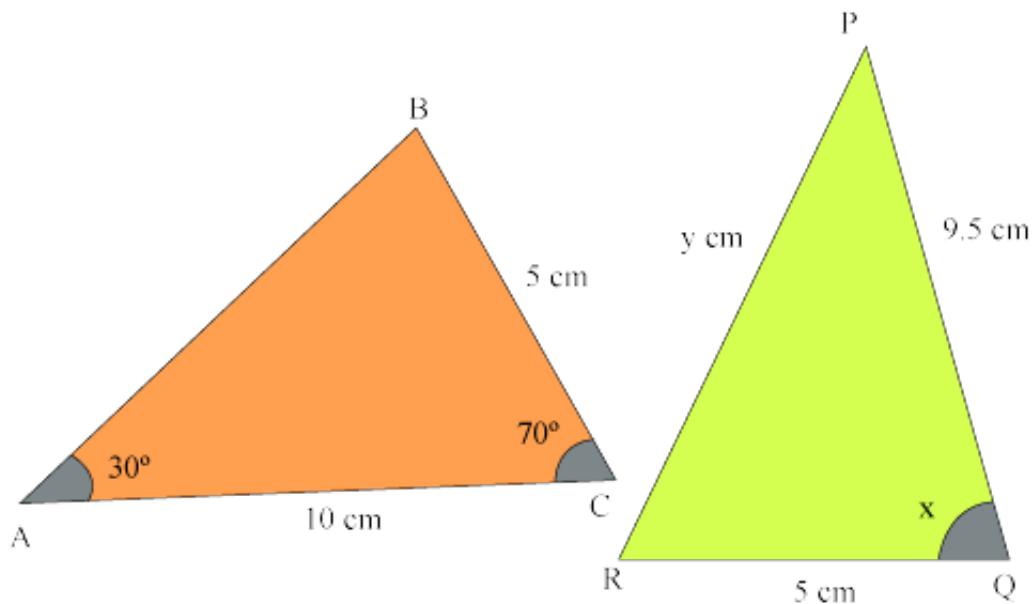


- 8 cm



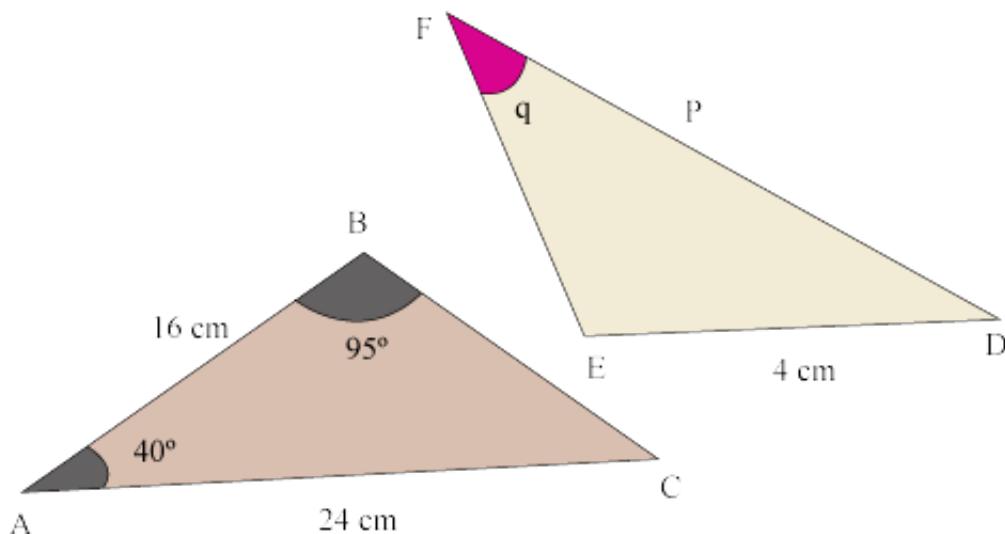
- 1 cm
- 3 cm
- 7 cm

7)  $\triangle ABC$  is congruent to  $\triangle PQR$  (a) What is the value of  $x$ ? (b) What is the length of  $y$ ?



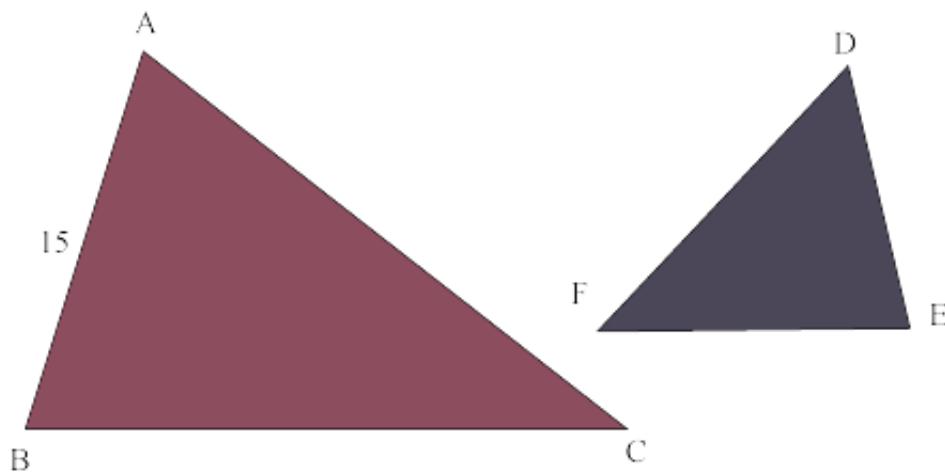
- a)  $80^\circ$ , b) 10 cm
- a)  $70^\circ$ , b) 20 cm
- a)  $10^\circ$ , b) 60 cm
- a)  $60^\circ$ , b) 80 cm

8)  $\triangle ABC$  is similar to  $\triangle DEF$ . Find, (a) The angle  $q$ . (b) The length of  $p$ .



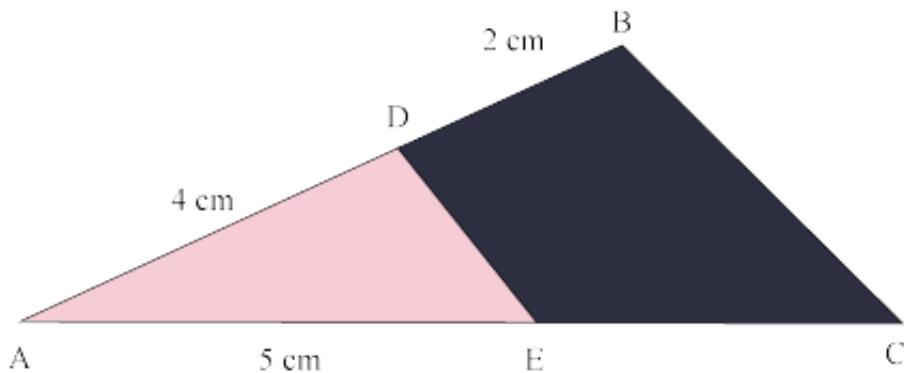
- a)  $46^\circ$ , b) 2 cm
- a)  $45^\circ$ , b) 6 cm
- a)  $41^\circ$ , b) 3 cm
- a)  $47^\circ$ , b) 5 cm

9)  $\triangle ABC$  is similar to  $\triangle DEF$ . Given that  $AB = 15$  cm and  $DE = 5$  cm, find  $AC/DF$  in its simplest form



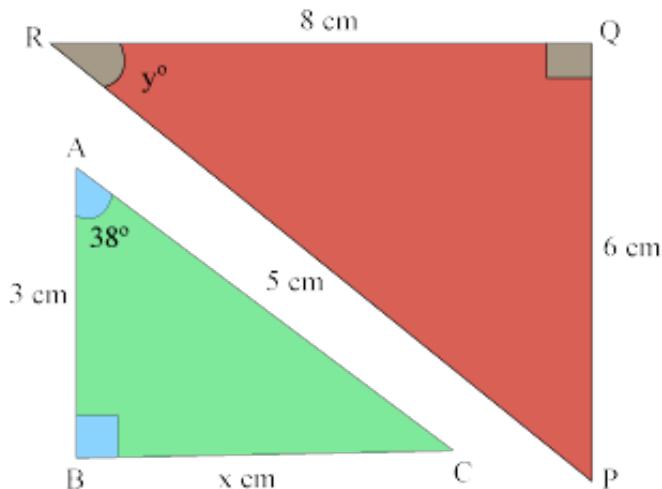
- 3
- 2
- 7
- 8

10) Given that  $\triangle ABC$  and  $\triangle ADE$  are similar triangles, find the length of EC



- 4.5 cm
- 5.5 cm
- 6.5 cm
- 2.5 cm

11) Given  $\triangle ABC$  is similar to  $\triangle PQR$ . Find the values of  $x$  and  $y$ .

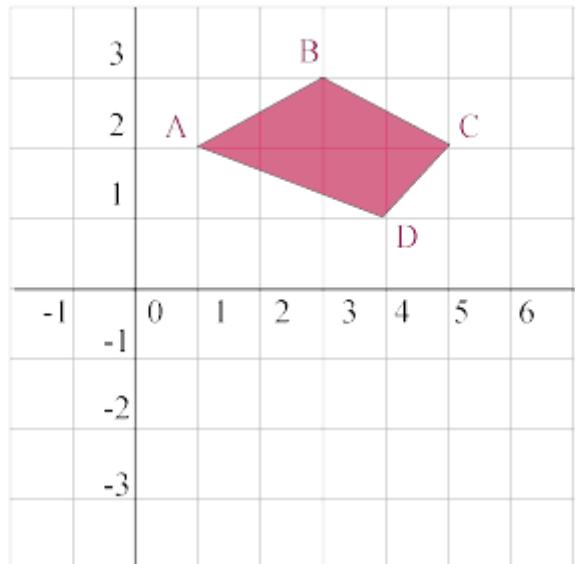


- $x = 4\text{cm}, y = 52^\circ$
- $x = 6\text{cm}, y = 32^\circ$
- $x = 5\text{cm}, y = 42^\circ$
- $x = 8\text{cm}, y = 12^\circ$

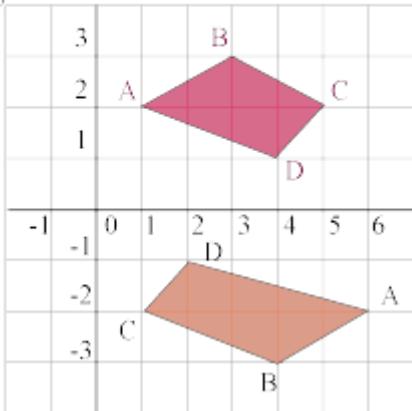
12) Graph the image of the figure using the transformation given: Reflection about x-axis:



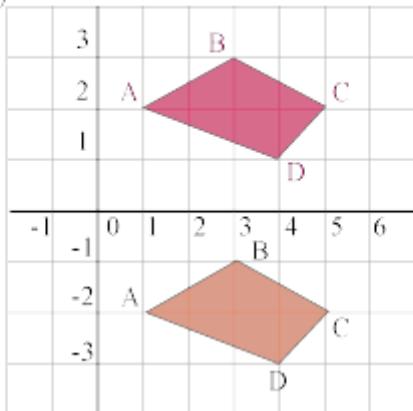
Q



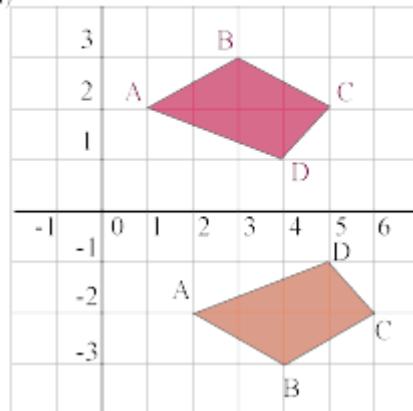
(b)



(c)



(d)

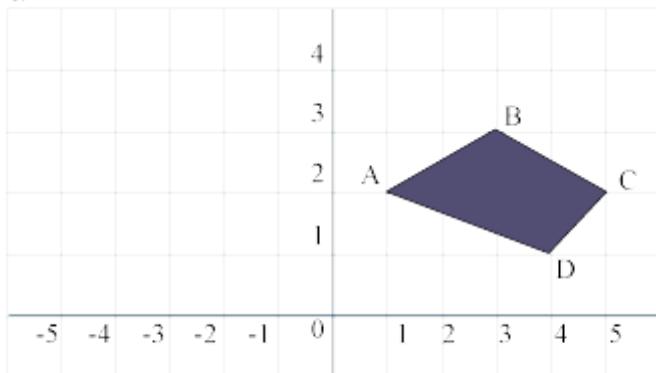


- b
- c
- d
- a

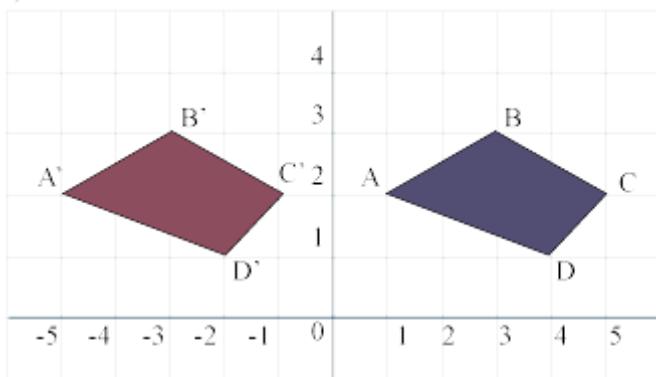
13) Graph the image of the figure using the transformation given: Reflection about y-axis:



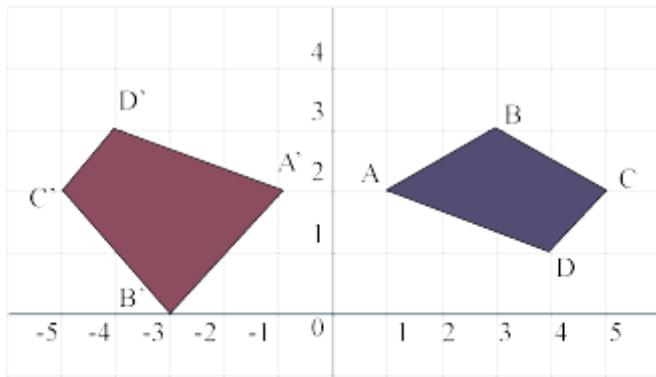
Q)



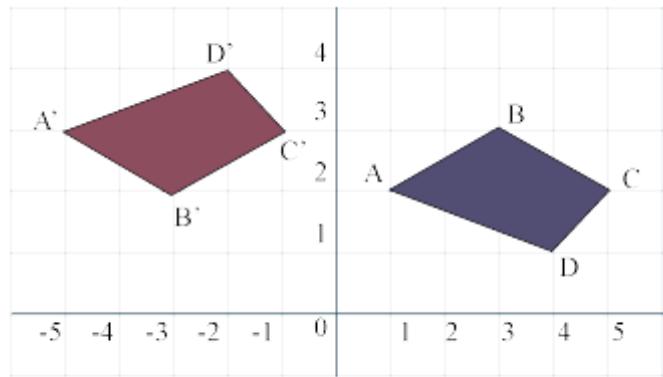
a)



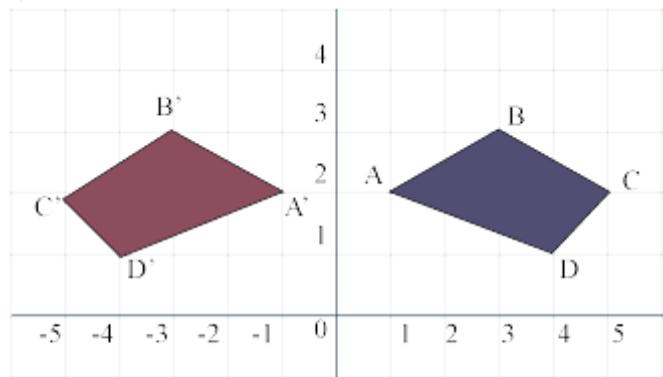
b)



c)



d)

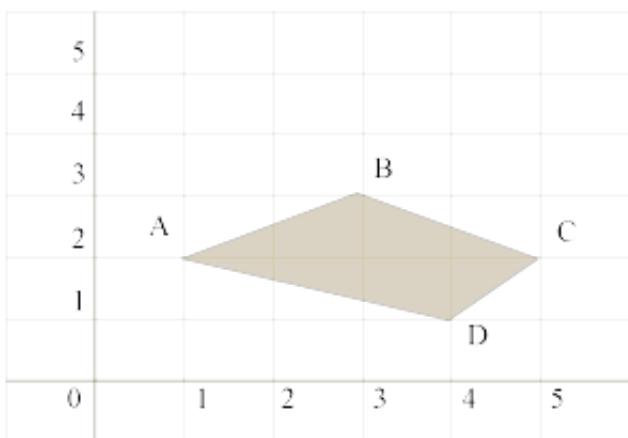


- c
- a
- d
- b

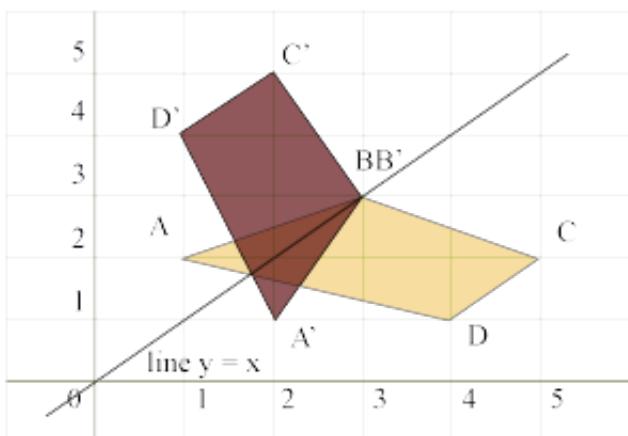
14) Graph the image of the figure using the transformation given: Reflection about  $y = x$



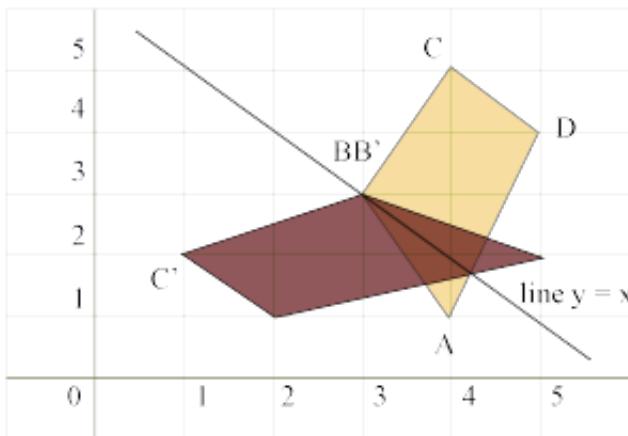
Q.



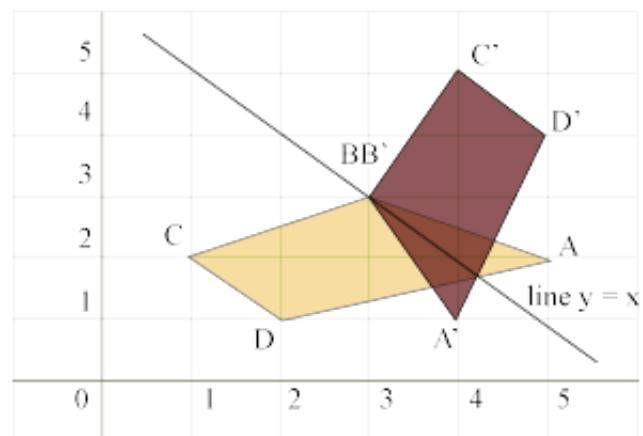
a.



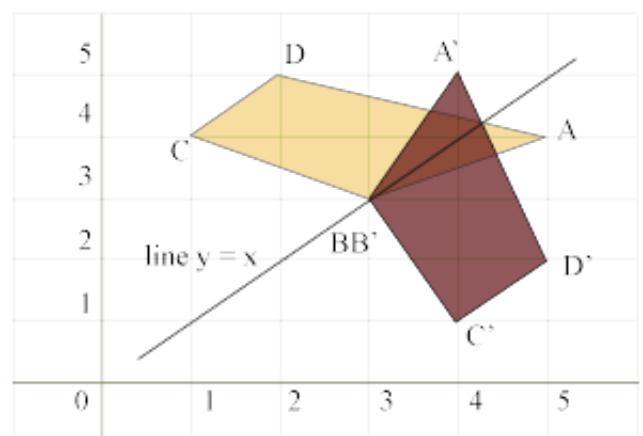
b.



c.



d.

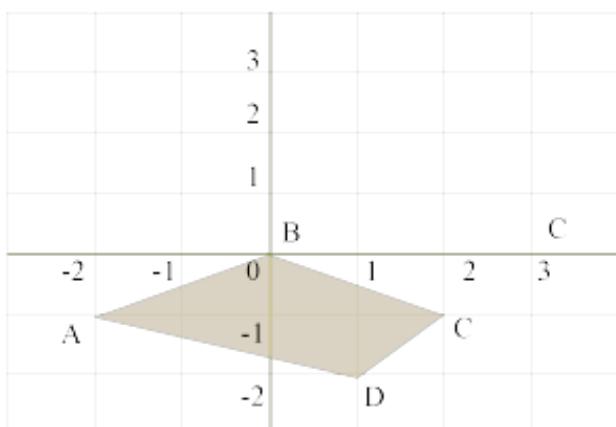


- d
- b
- c
- a

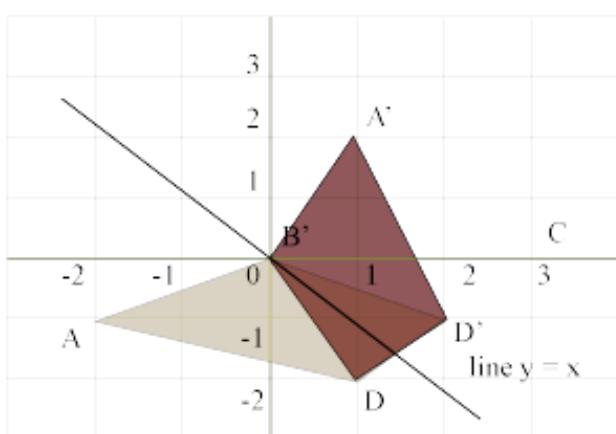
15) Graph the image of the figure using the transformation given: Reflection about  $y = -x$



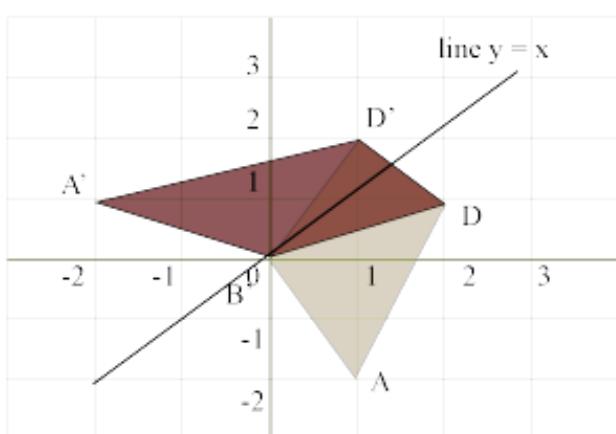
Q.



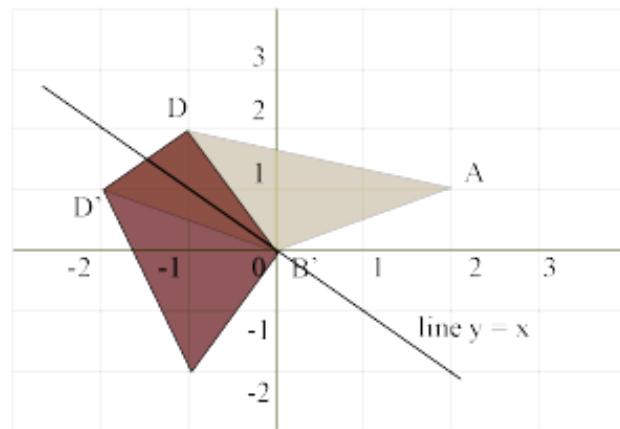
a.



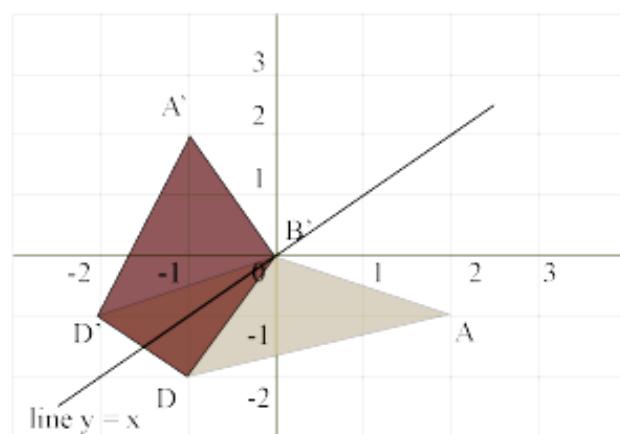
b.



c.

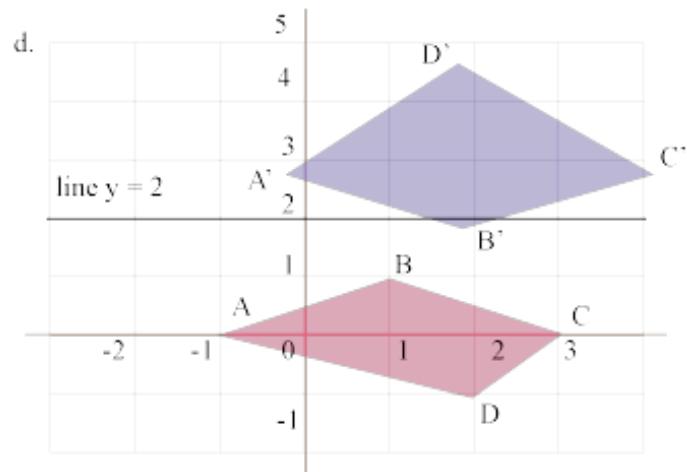
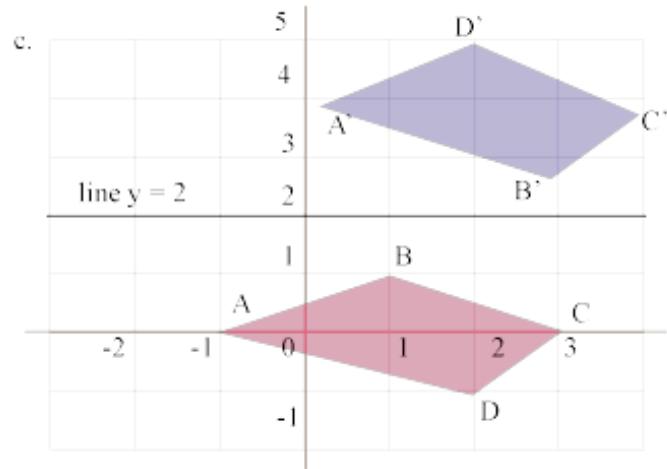
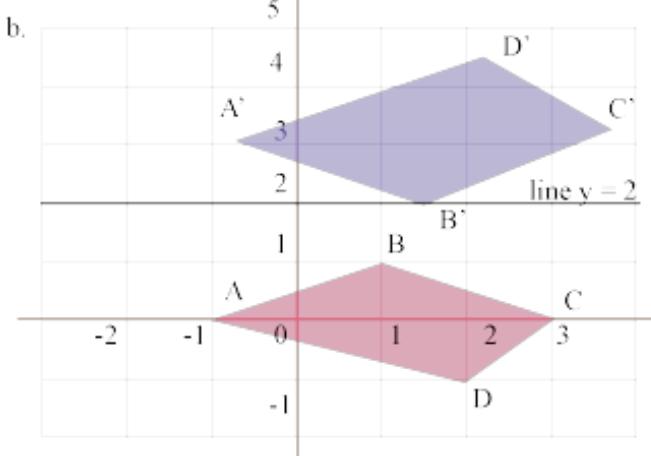
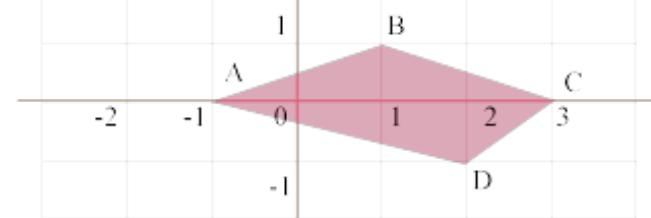
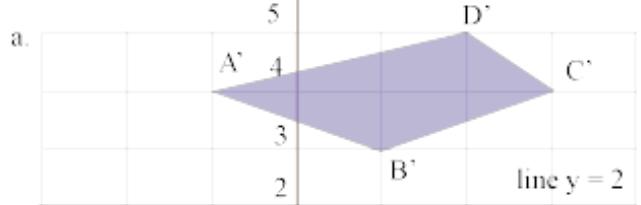
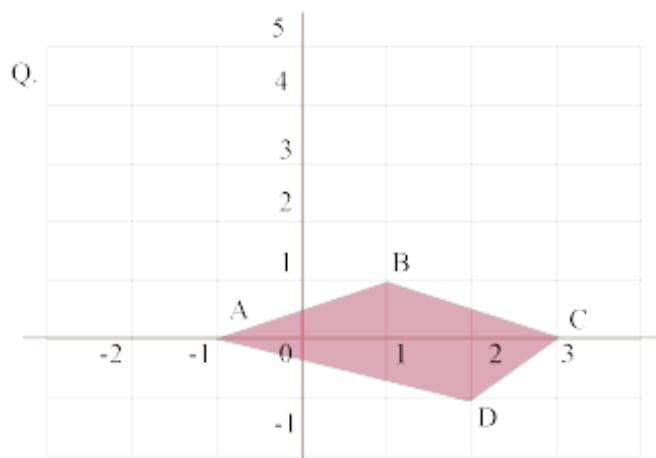


d.



- d
- b
- c
- a

16) Graph the image of the figure using the transformation given: Reflection about  $y = 2$

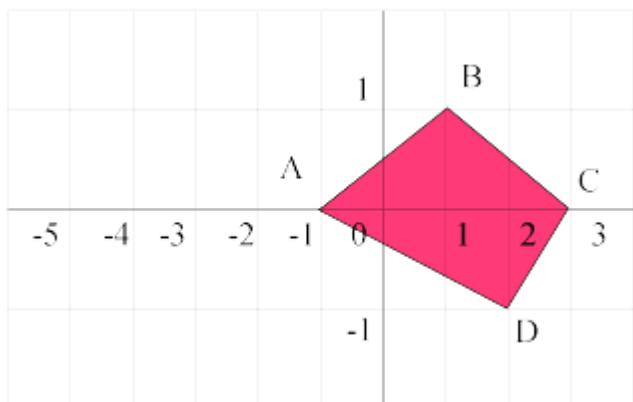


- b
- d
- a
- c

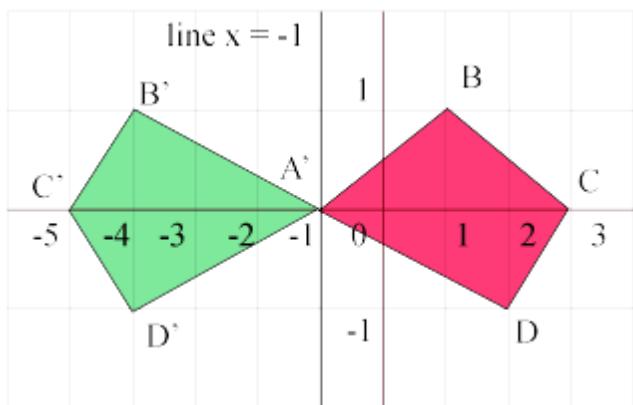
17) Graph the image of the figure using the transformation given: Reflection about  $x = -1$



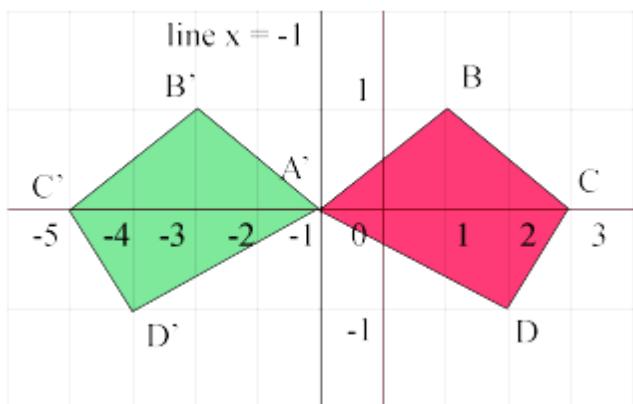
Q.



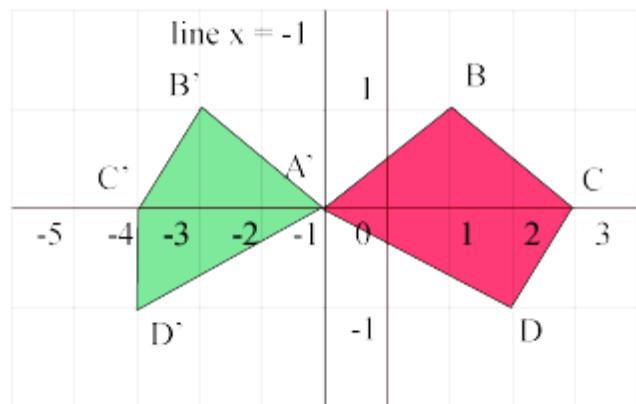
a.



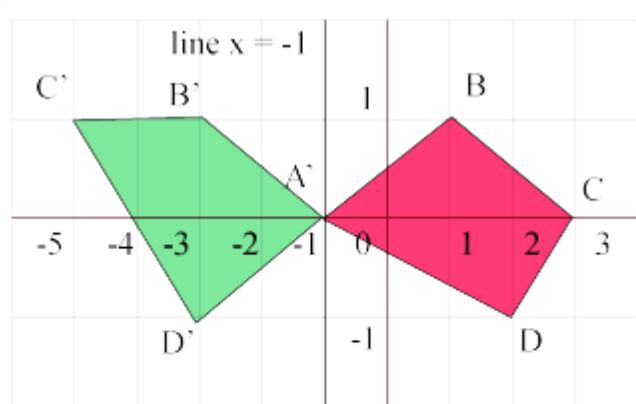
b.



c.

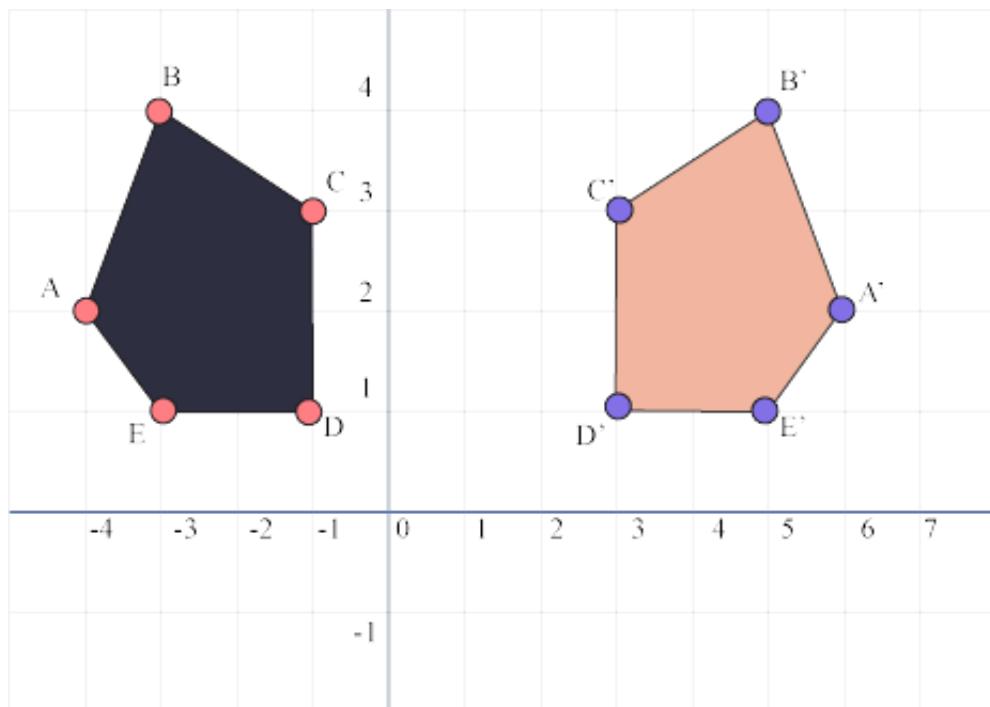


d.



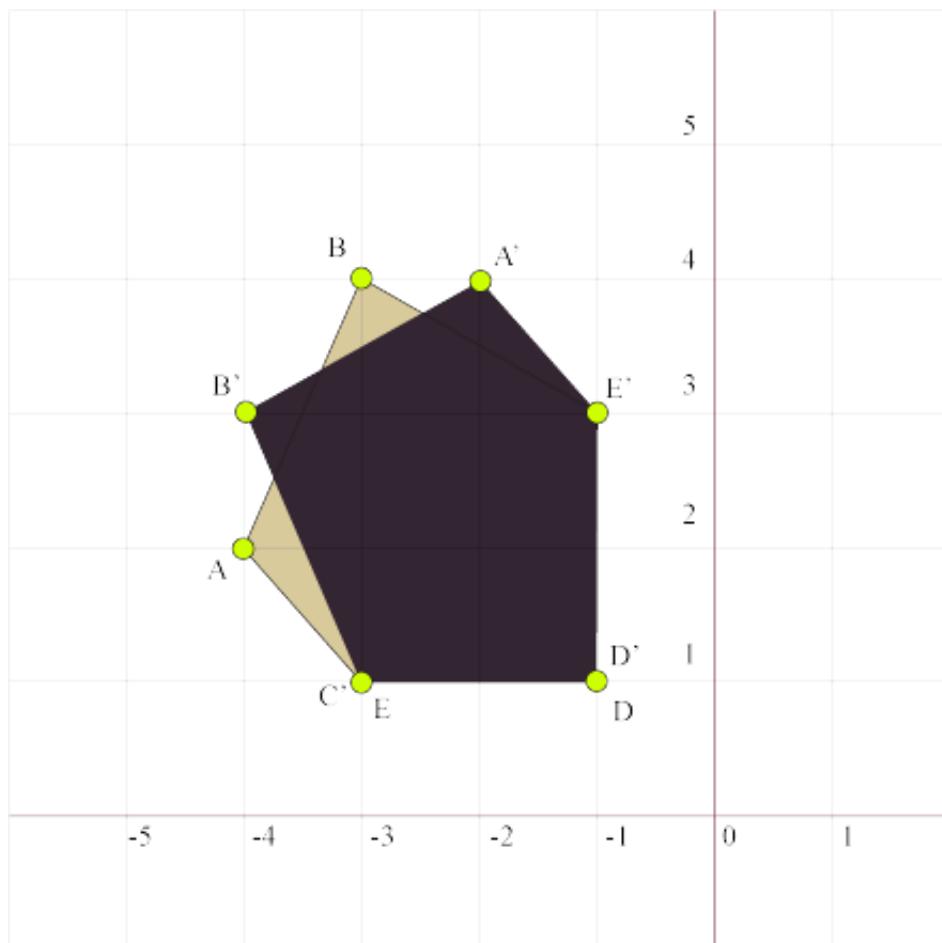
- b
- a
- d
- c

18) Write the equation of the line of reflection. Black is the original, brown is the image



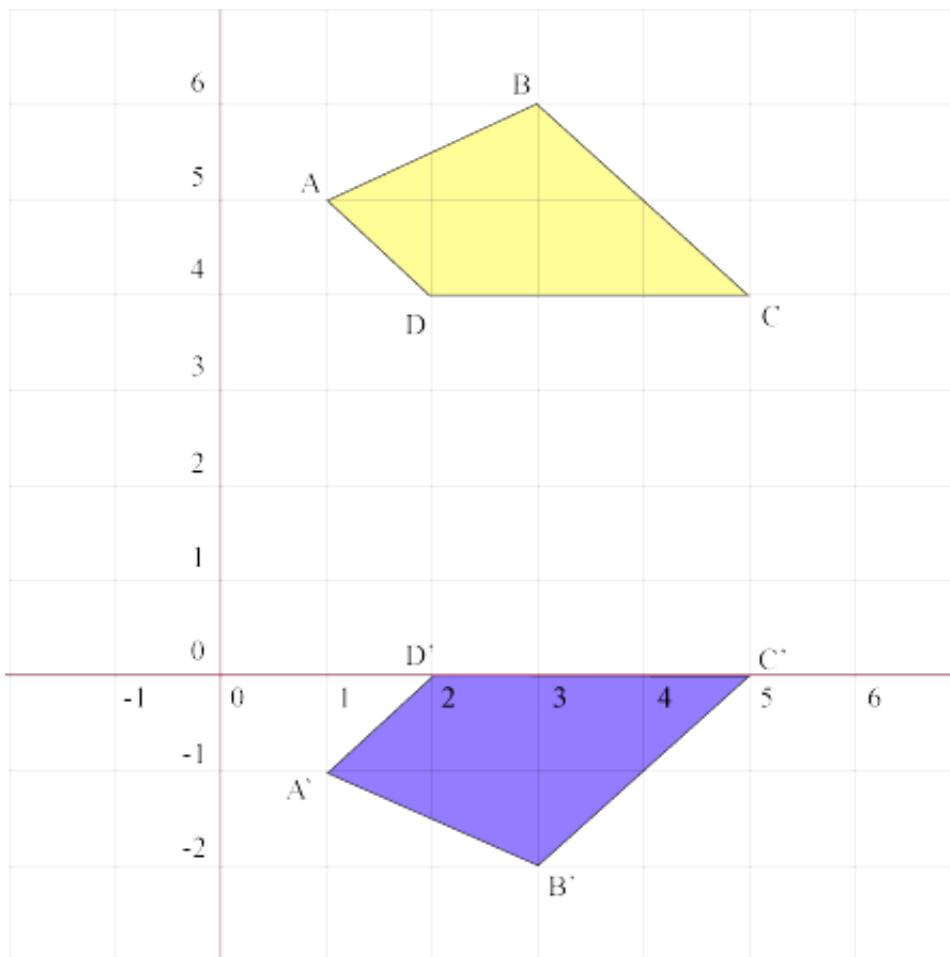
- $x = 3$
- $x = 2$
- $x = 1$
- $x = 4$

19) Write the equation of the line of reflection. Sandal is the original, Black is the image.



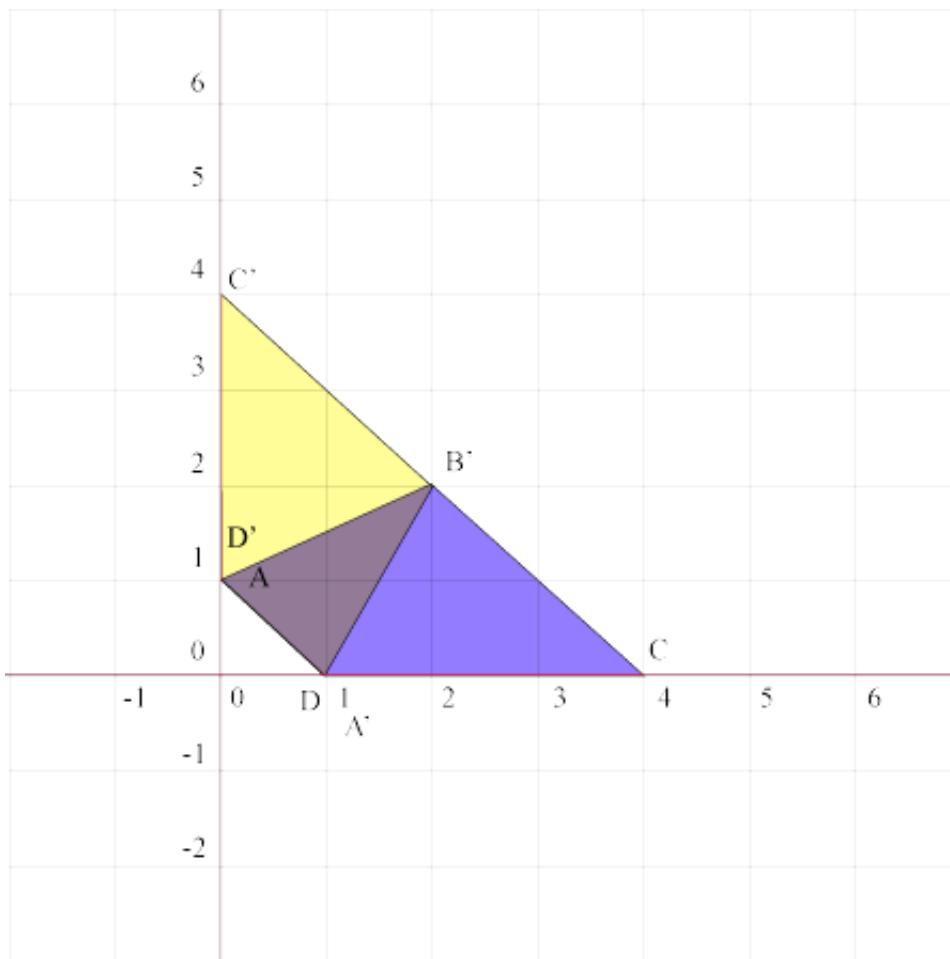
- $y = y$
- $y = -x$
- $y = -y$
- $y = x$

20) Write the equation of the line of reflection. Yellow is the original, purple is the image.



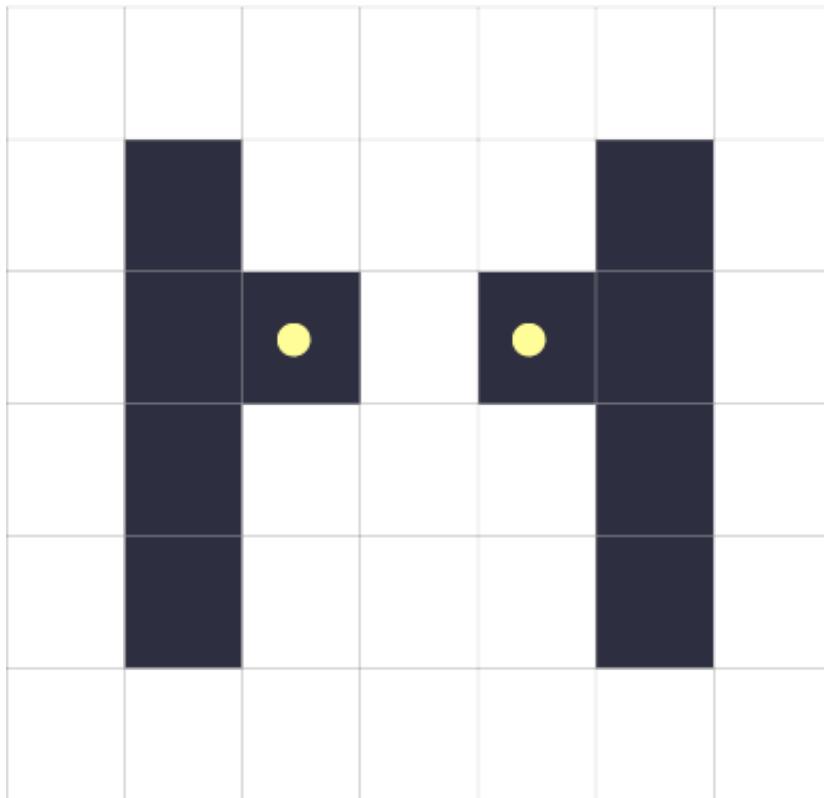
- $y = 3$
- $y = 2$
- $y = 4$
- $y = 5$

21) Write the equation of the line of reflection. Purple is the original, yellow is the image



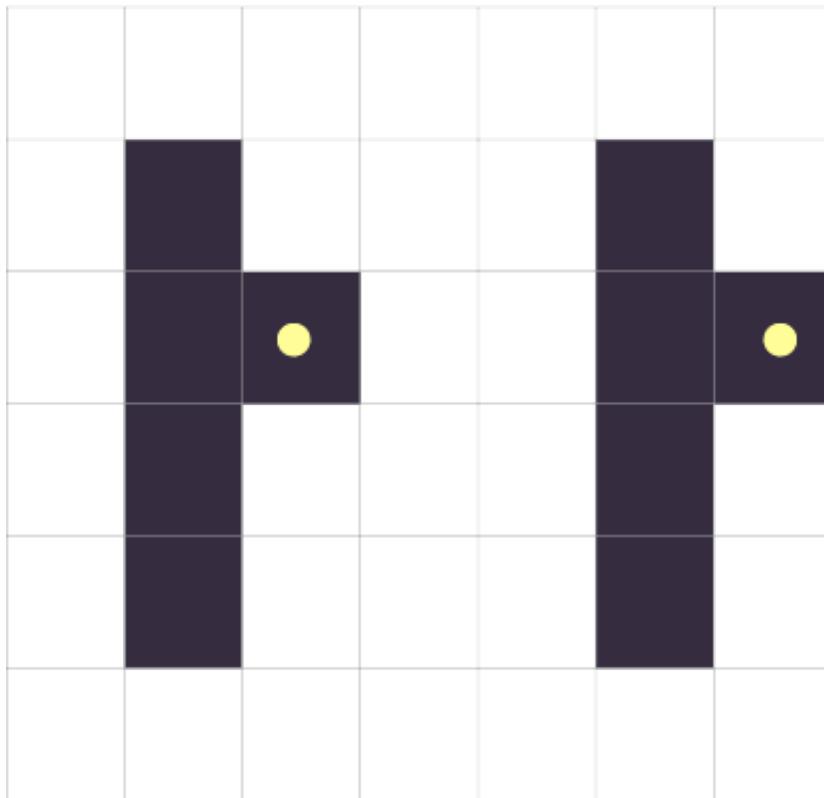
- $y = -y$
- $y = -x$
- $y = x$
- $y = y$

22) How the following figures are moved? Is it translation or Reflection or Rotation or Dilation?



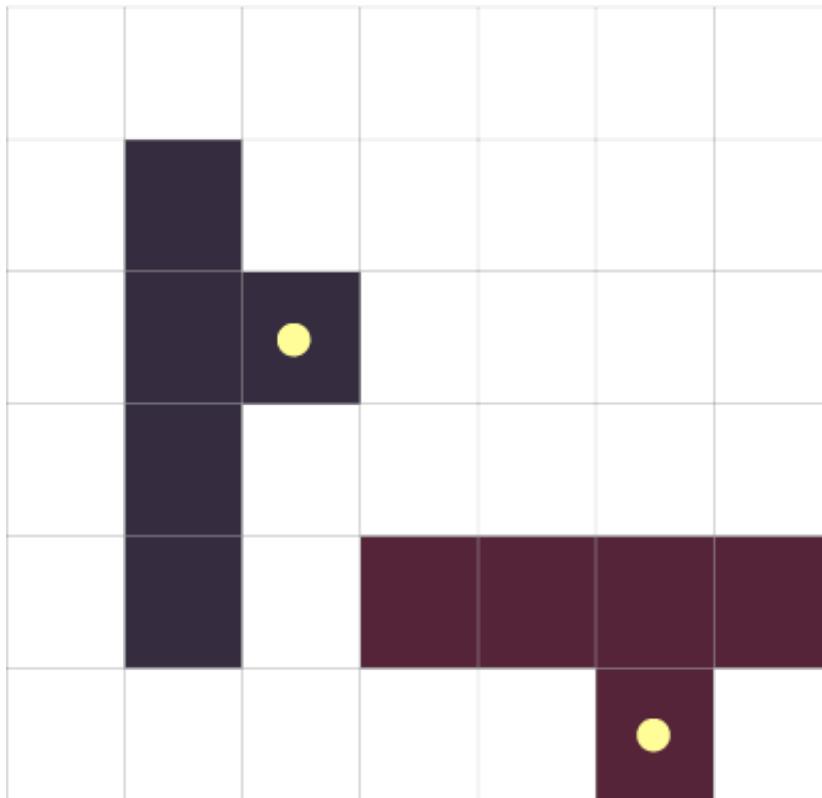
- Rotation
- Translation cum reflection
- Translation
- Reflection

23) How the following figures are moved? Is it translation or Reflection or Rotation or Dilation?



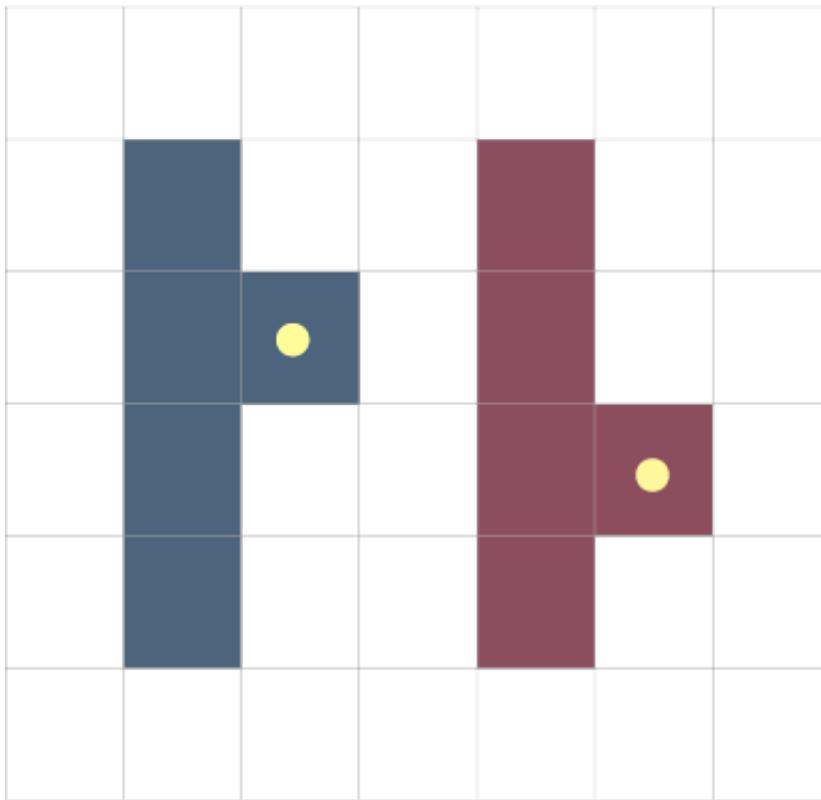
- Translation cum reflection
- Translation
- Reflection
- Rotation

24) How the following figures are moved? Is it translation or Reflection or Rotation or Dilation?



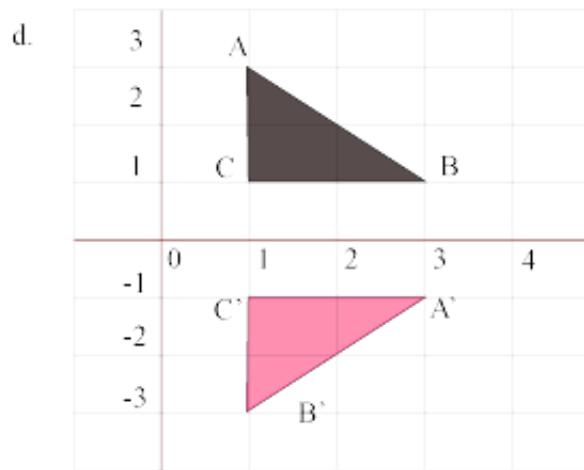
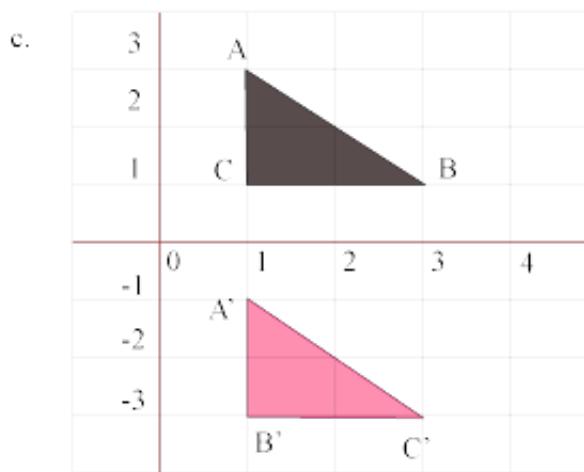
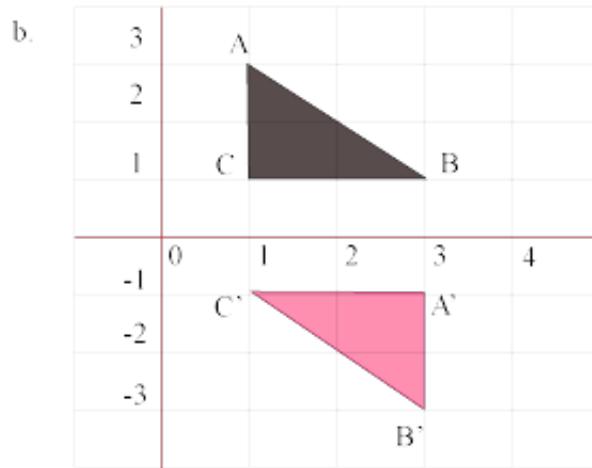
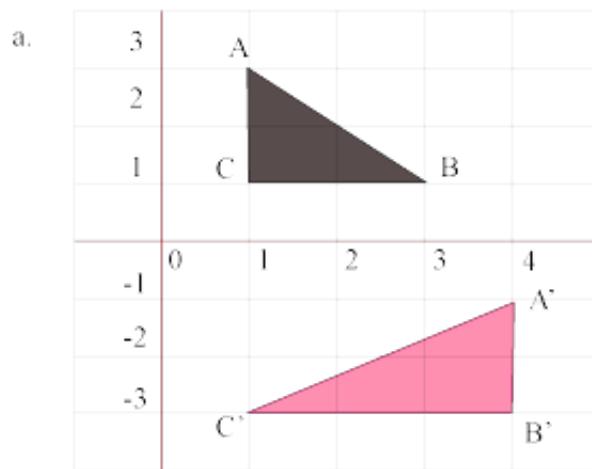
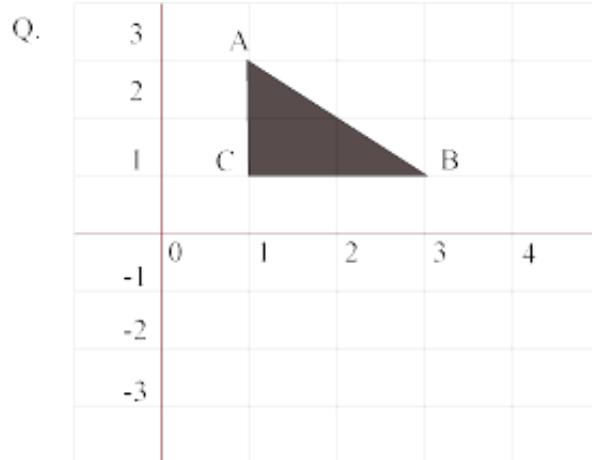
- Reflection
- Translation cum reflection
- Rotation
- Translation

25) How the following figures are moved? Is it translation or Reflection or Rotation or Dilation?



- Translation
- Translation cum reflection
- Reflection
- Rotation

26) Draw the pre-image of the following translations as per the given rule: Rotate 90° clockwise direction about the center (0, 0)



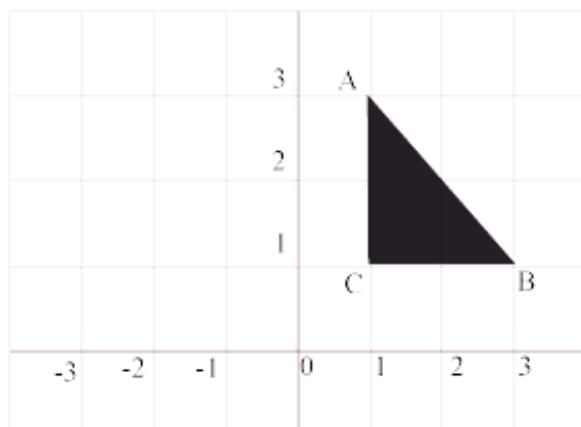
- c
- d
- b
- a

27) Draw the pre-image of the following translations as per the given rule: Rotate 90° counter clockwise

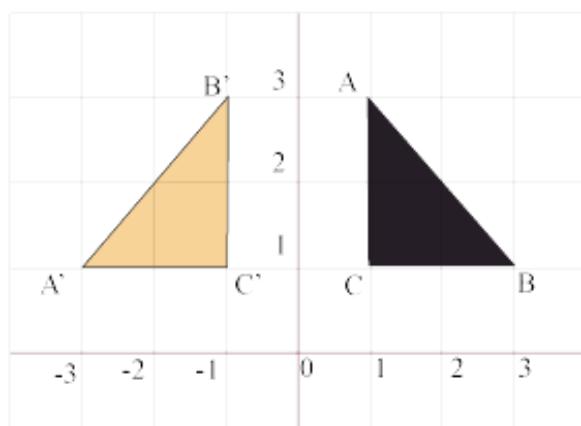


direction about the center  $(0, 0)$

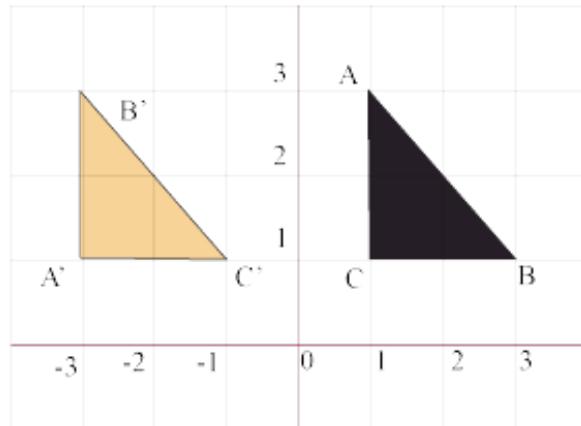
Q)



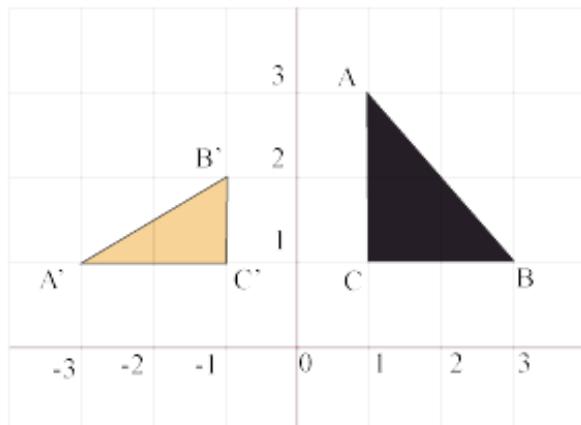
a)



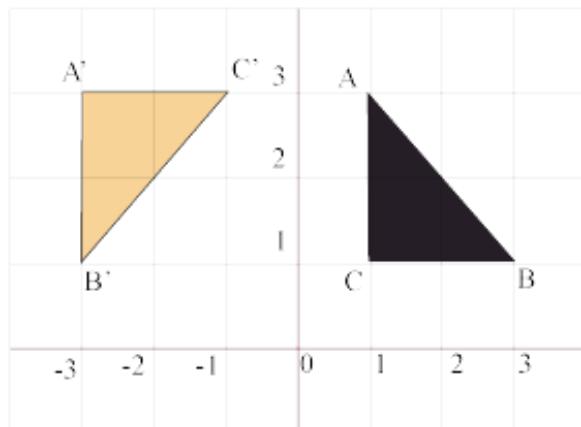
c)



d)

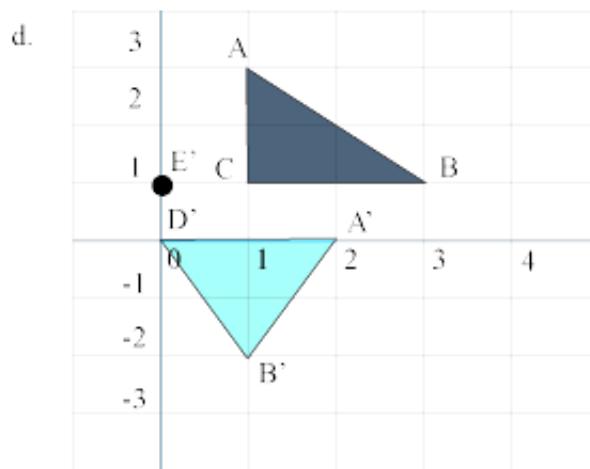
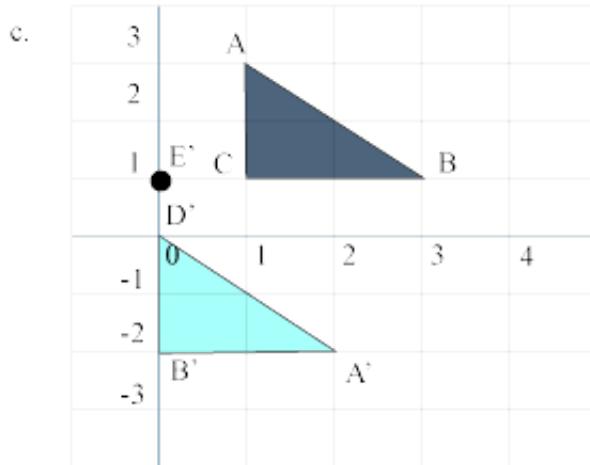
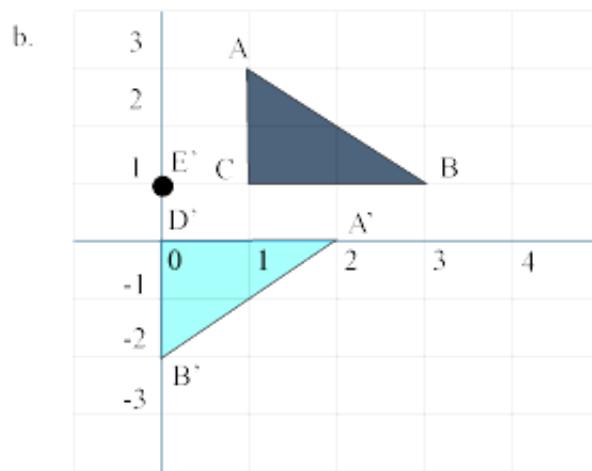
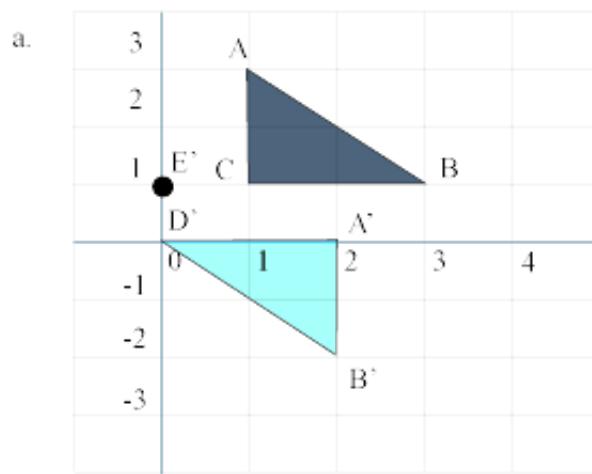
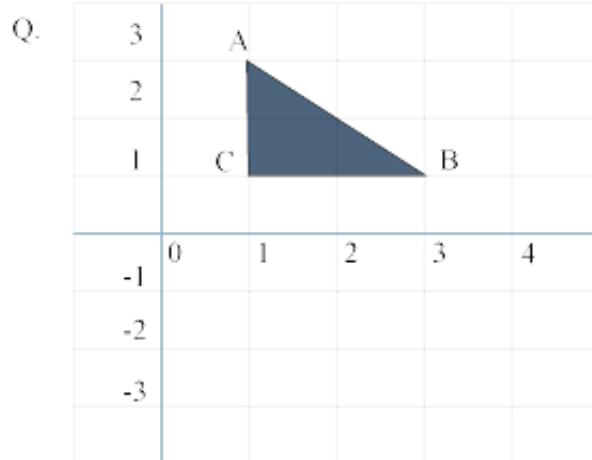


b)



- b
- c
- a
- d

28) Draw the pre-image of the following translations as per the given rule: Rotate  $90^\circ$  clockwise direction about the center  $(0, 1)$

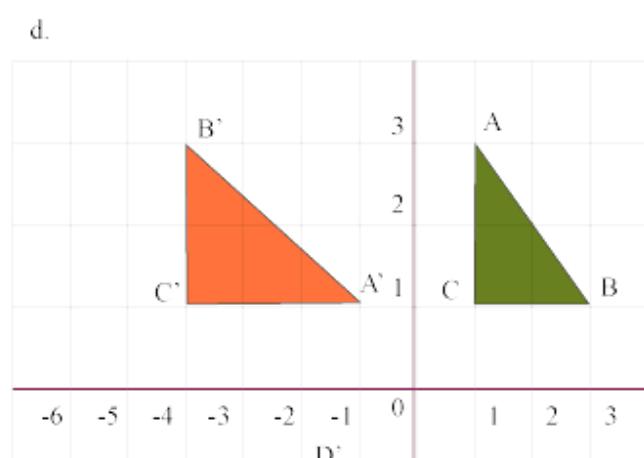
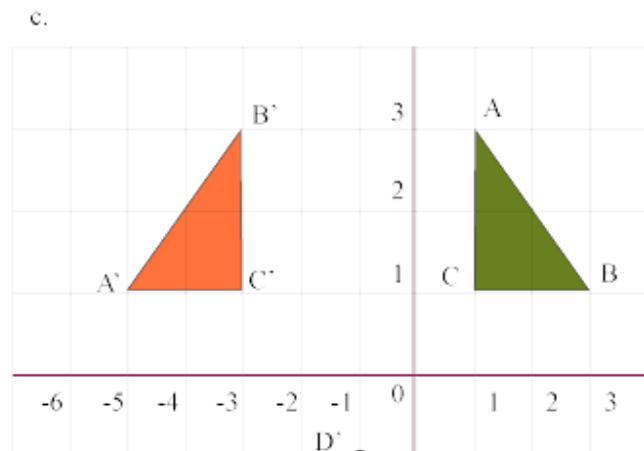
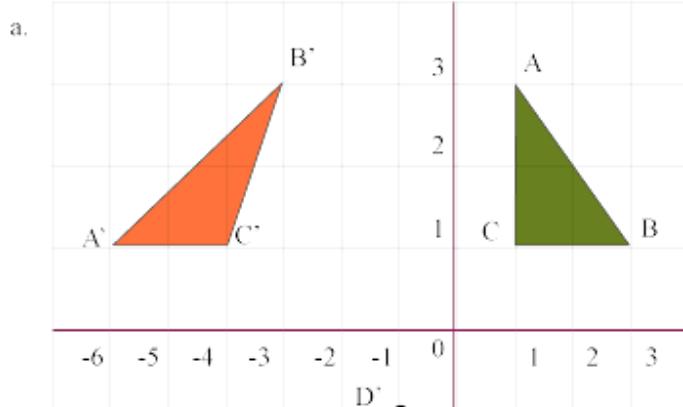
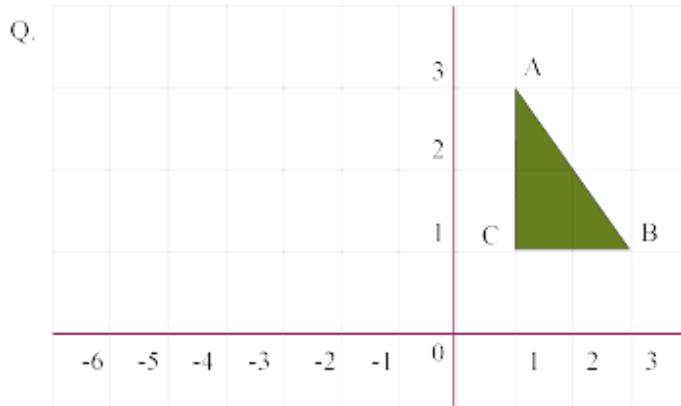


- b
- a
- c
- d

29) Draw the pre-image of the following translations as per the given rule: Rotate 90° counter clockwise



direction about the center  $(-1, -1)$

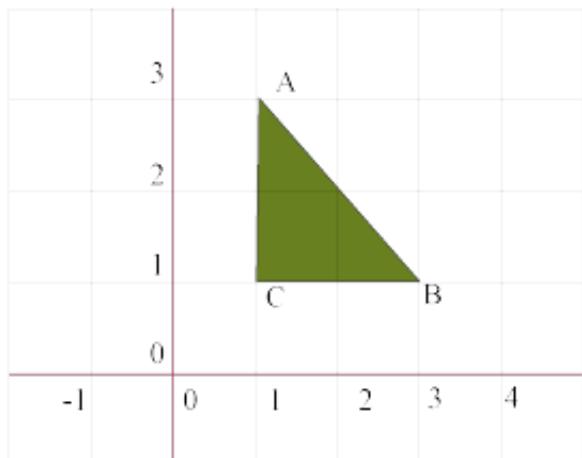


- b
- a
- d
- c

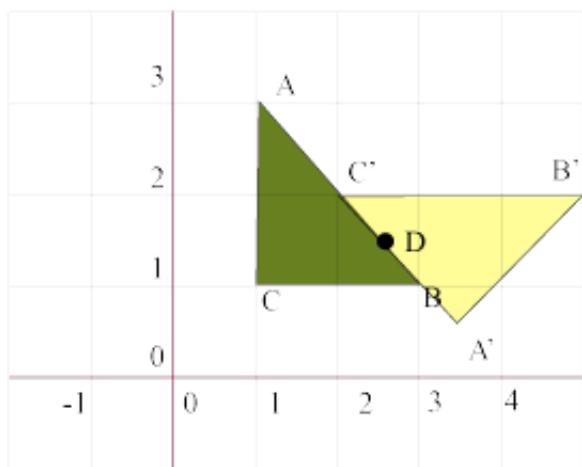
30) Draw the pre-image of the following translations as per the given rule: Rotate  $90^\circ$  clockwise direction about the center  $(2, 1)$ .



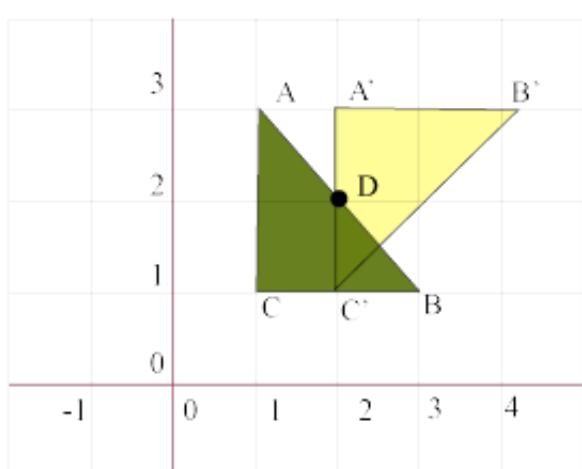
Q.



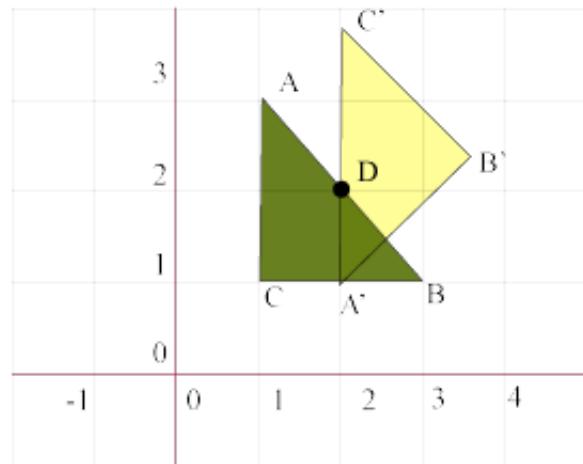
a.



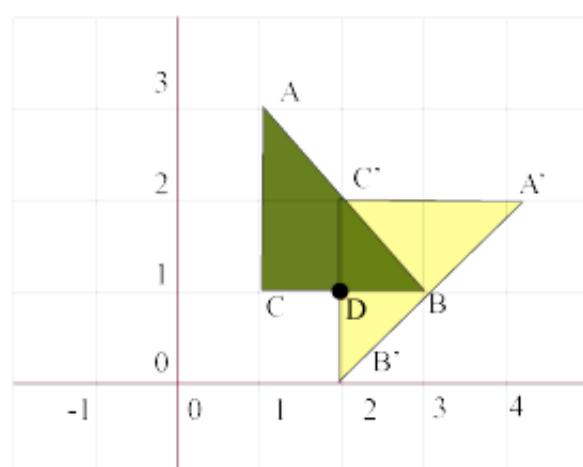
b.



c.



d.



- a
- b
- c
- d