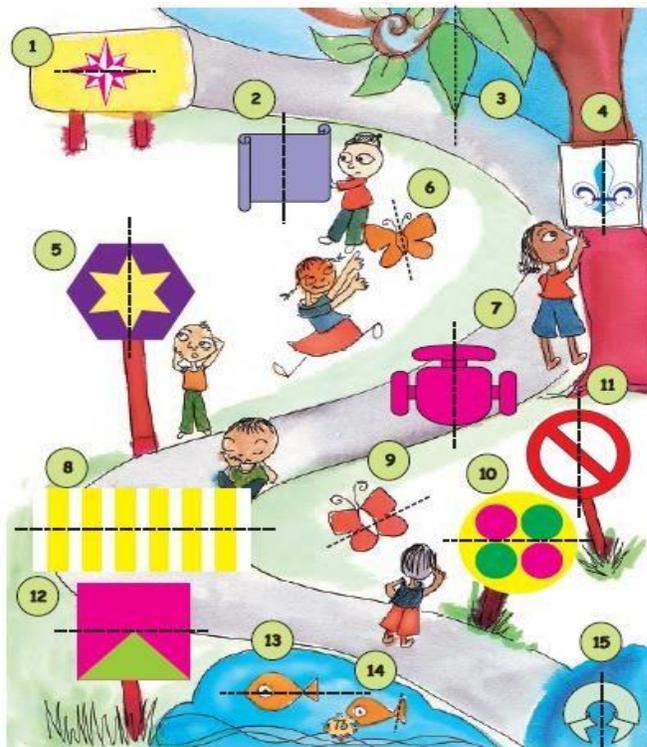


PAGE: 73

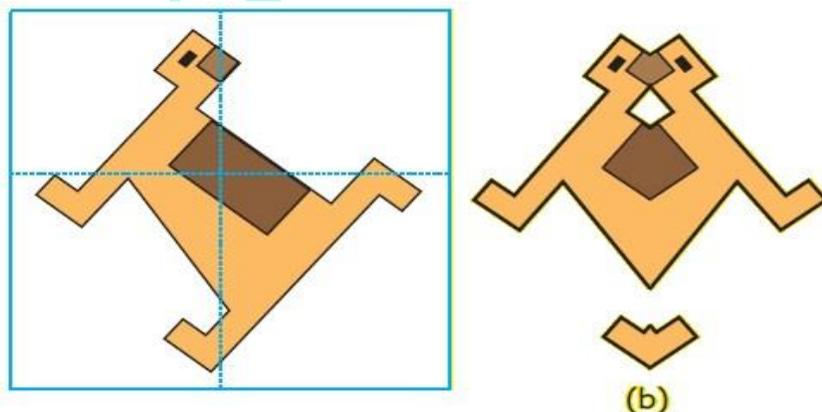
(1) Which shapes are divided into two mirror halves by the dotted line?



**Solution:-**

Shapes are divided into two mirror halves by the dotted line are, shape 5, shape 6, shape 7, shape 8, shape 13 and shape 15.

2. Look at the figure in the white box. On which of the dotted lines will you keep the mirror so that you get shape (b)? Also tell which part of the picture will be hidden when we keep the mirror on the dotted line.

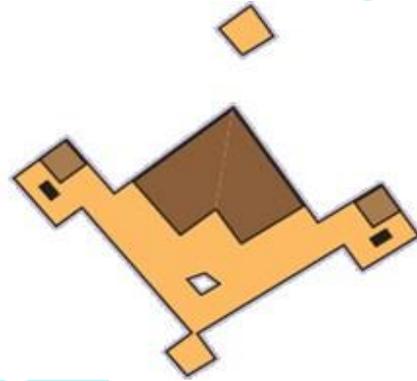
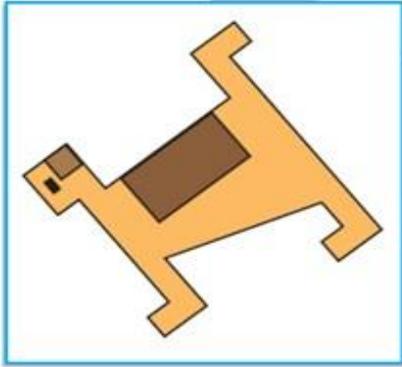
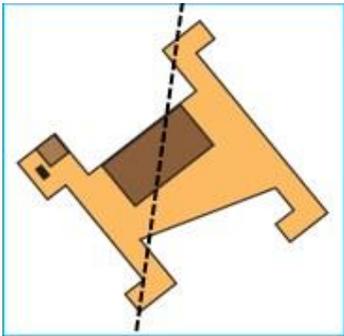


**Solution:-**

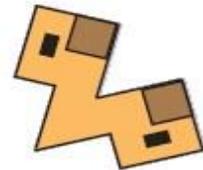
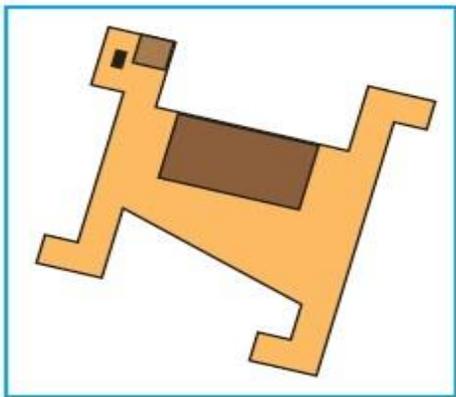
In this picture of a dog. Place a mirror on the vertical dotted line. Then the part of the dog to the right of the line will be hidden behind the mirror.

3. Now make a line on the white box to show where you will keep the Mirror Games mirror to get the picture next to it.

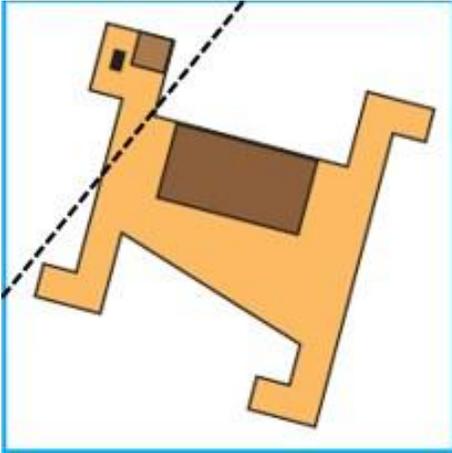
(i)

**Solution:-**

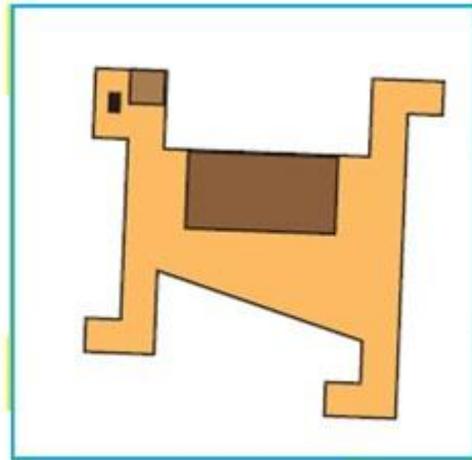
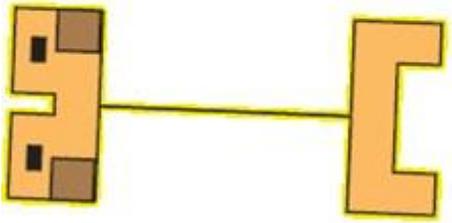
(ii)



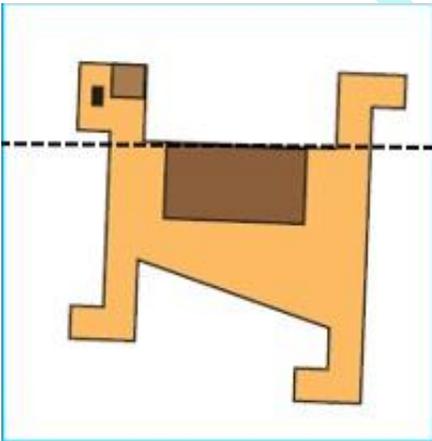
Solution:-



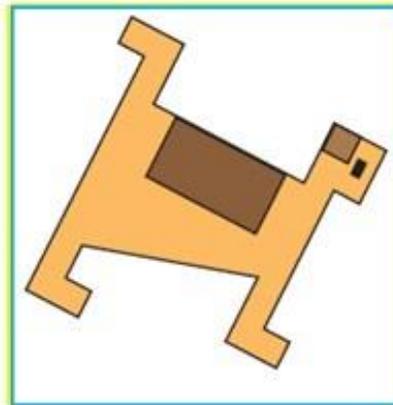
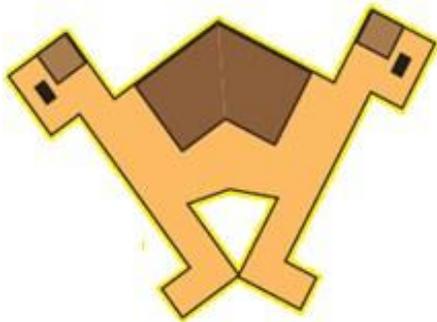
(iii)



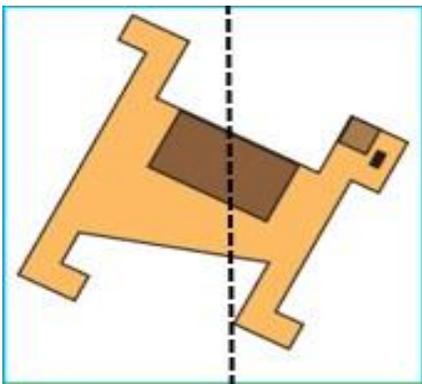
Solution:-



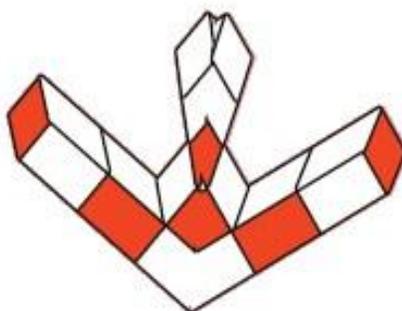
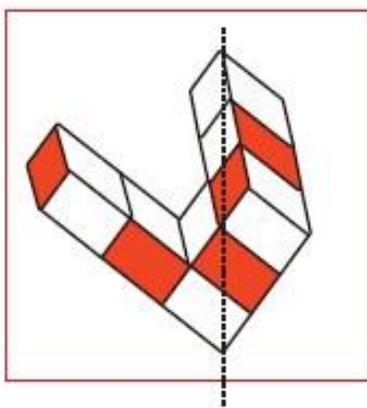
(iv)



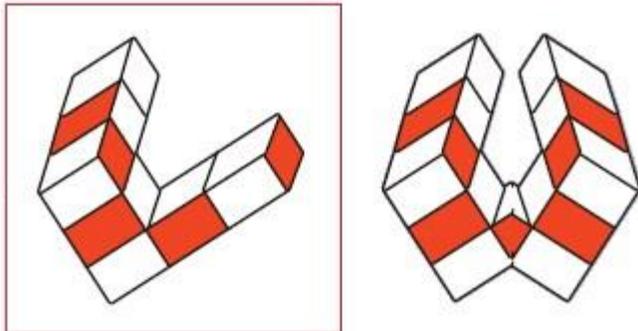
Solution:-



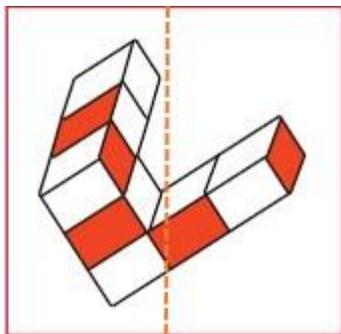
4. Venky has made a red and white shape. Make a line on the white box where you will keep a mirror to get that shape. Look at how the line is drawn in the first box to get the picture next to it. (a)



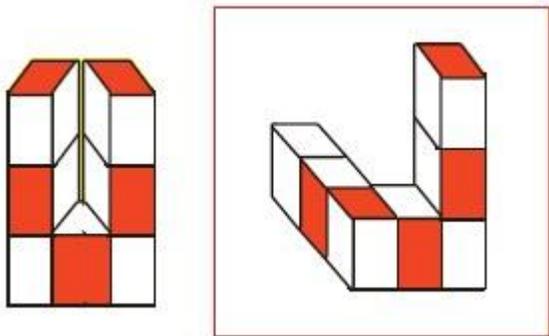
(b)



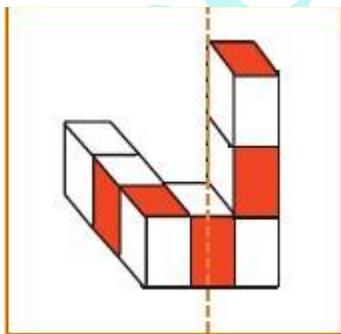
Solution:-



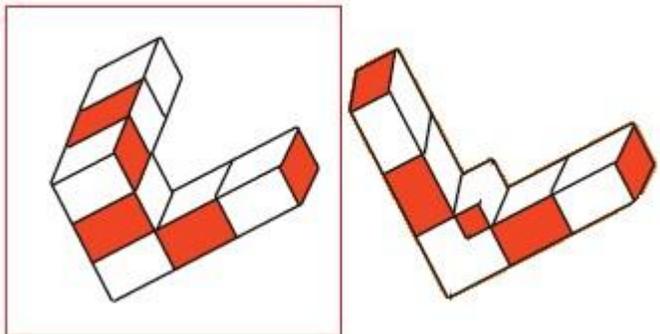
(c)



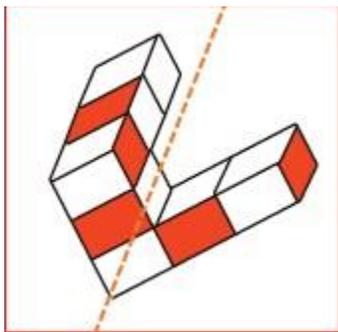
Solution:-



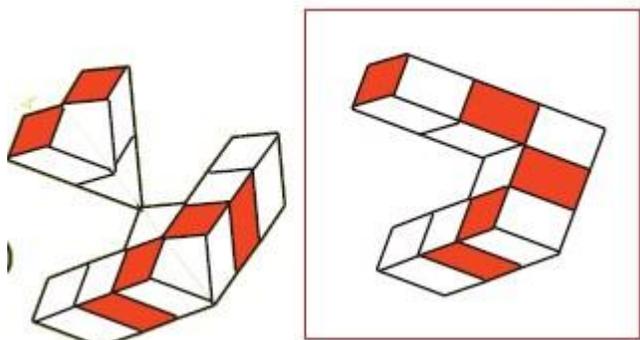
(d)



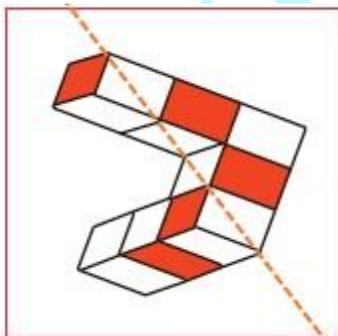
Solution:-



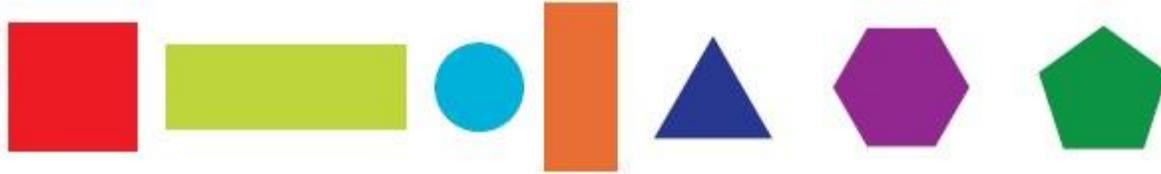
(e)



Solution:-



5. Guess which of the shapes below would look the same after half a turn.



**Solution:-**

The shapes below are look the same after half a turn.



6. Find out which letters in the English alphabet look the same after half a turn.

**Solution:-**

Letters in the English alphabet look the same after half a turn are H, I, O, S, X and Z.

7. Which of these English words reads the same on half a turn?

ZOOM, MOW, SWIMS, SIS, NOON

**Solution:-**

MOW, SWIMS, SIS, NOON these English words reads the same on half a turn.

8. Give half a turn to the numbers from 0 to 9. Find which of them still looks the same.

**Solution:-**

Numbers from 0 to 9 look the same after half a turn are 0, 1 and 8.

9. Think of all 2, 3 and 4 digit numbers which look the same on half a turn.

**Solution:-**

2 digit numbers 11, 88

3 digit numbers 101, 111, 808, 888, 181, 818

4 digit numbers 1001, 1111, 8008, 8888, 8118, 1881

10. Which among the following pictures will look the same on half a turn?

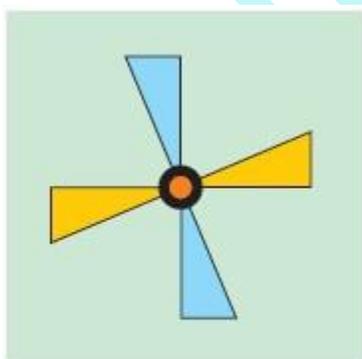


**Solution:-**

The pictures below will look the same on half a turn.



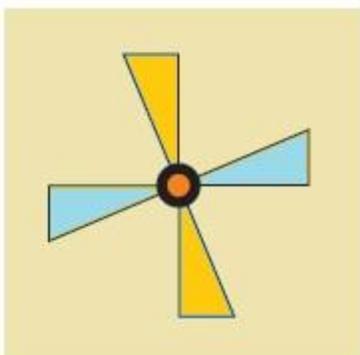
11. Will this fan also look the same after  $\frac{1}{4}$  turn? Draw in the yellow box.



Before turning it

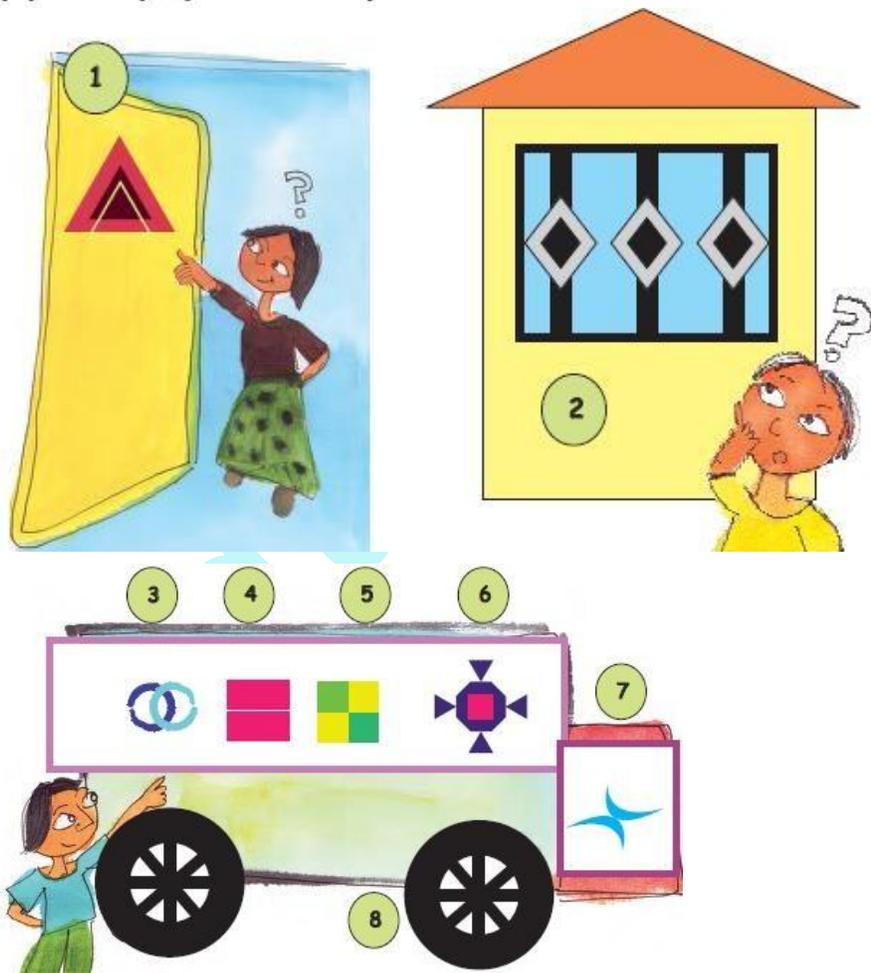
**Solution:-**

No, this fan won't be look same after  $\frac{1}{4}$  turn.



12. (i) Among the following shapes, find out which ones would look the same after  $\frac{1}{4}$  turn. Put a (✓).

(ii) Put a (X) on the shapes that will not look the same after half a turn.



Solution:-



13. Draw what the following shapes would look like on turn and half a turn.

|   |   |  |                     |  |
|---|---|--|---------------------|--|
| <p>a) </p> <p>b) </p> <p>c) </p> <p>d) </p> | <i>On <math>\frac{1}{4}</math> turn</i> |  | <i>On half turn</i> |  |
|---|---|--|---------------------|--|

Solution:-

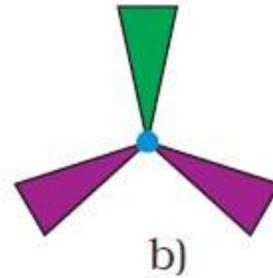
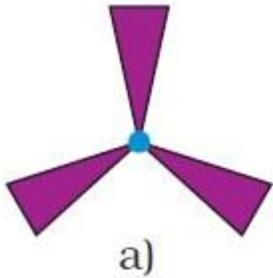
|   |   |   |   |   |
|---|---|---|---|---|
| <p>a) </p> <p>b) </p> <p>c) </p> <p>d) </p> | <i>On <math>\frac{1}{4}</math> turn</i>   |   | <i>On half turn</i>   |   |
|   | <p>a) </p>   | <p>b) </p>   | <p>c) </p>   | <p>d) </p>   |
|   | <p>a) </p> | <p>b) </p> | <p>c) </p> | <p>d) </p> |

(ii) Which of the above shapes do not look the same on  $\frac{1}{4}$  turn? Which shapes do not look the same on a  $\frac{1}{2}$  turn?

In the above table, image (a), image (c) and (d) do not look the same on  $\frac{1}{4}$  turn.

Then, image (a) does not look the same on  $\frac{1}{2}$  turn.

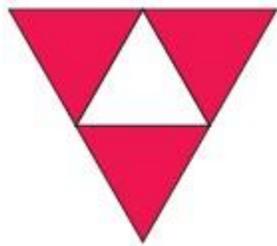
14. Which fan will look the same on a  $\frac{1}{3}$  turn?



**Solution:-**

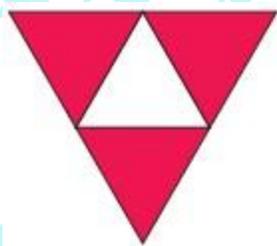
In the given two fan figure, figure (a) will look the same on a  $\frac{1}{3}$  turn.

15. Draw this shape after  $\frac{1}{3}$  turn.



**Solution:-**

The shape after  $\frac{1}{3}$  turn is,



16. Look at the following shapes. Draw how they will look on  $\frac{1}{3}$  and  $\frac{1}{6}$  turn.

|  | $\frac{1}{3}$ turn | $\frac{1}{6}$ turn |
|--|--------------------|--------------------|
|  |                    |                    |
|  |                    |                    |
|  |                    |                    |
|  |                    |                    |

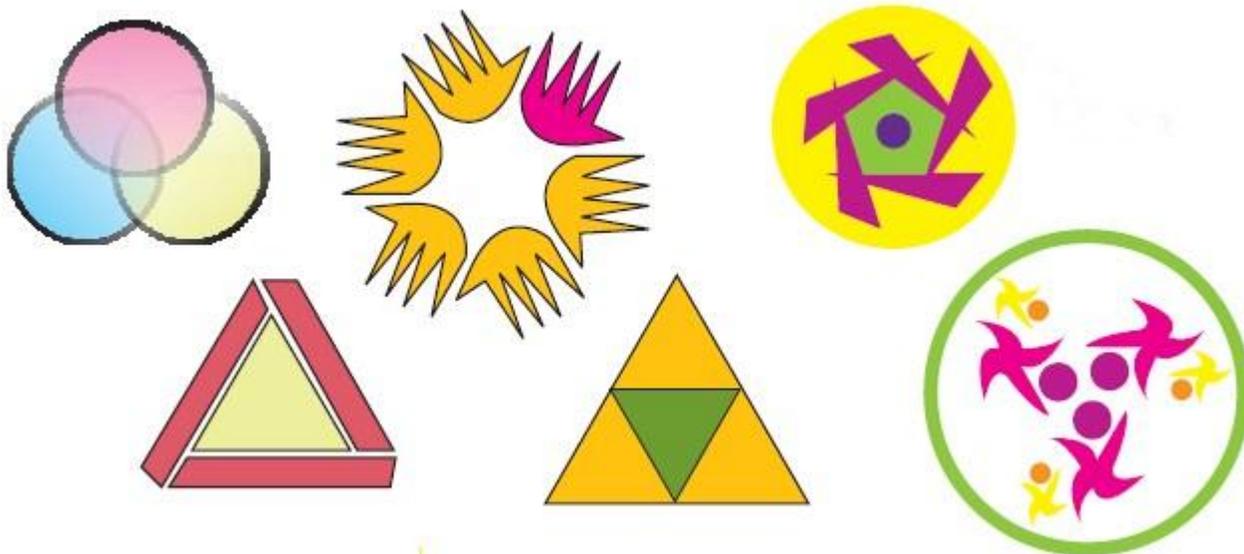
Solution:-

|  | $\frac{1}{3}$ turn | $\frac{1}{6}$ turn |
|--|--------------------|--------------------|
|  |                    |                    |
|  |                    |                    |
|  |                    |                    |
|  |                    |                    |

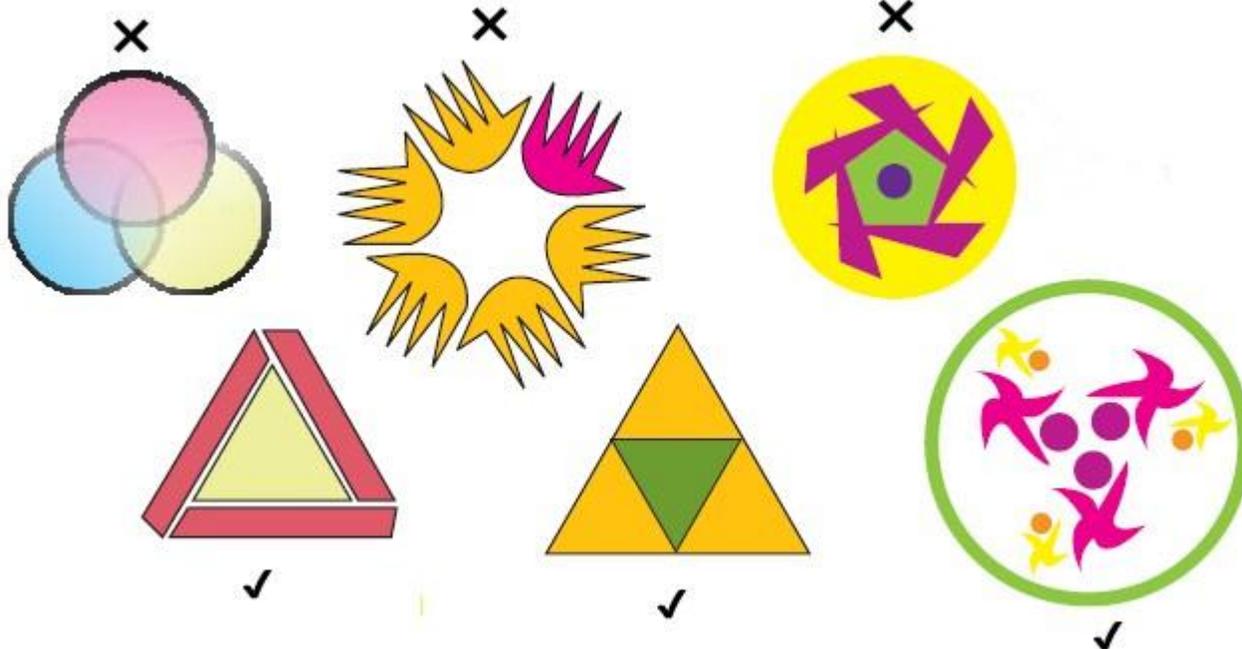
17. Look at the following shapes

a) Find out which of these figures look the same on turn. Mark them with (✓).

b) Which are the ones that will not look the same after 1/3 turn? Mark them with (X).



Solution:-



18. Try and change the shapes below in such a way that they look the same on  $1/3$  turn.



Solution:-

