ODM EDUCATIONAL GROUP
Changing your Tomorrow

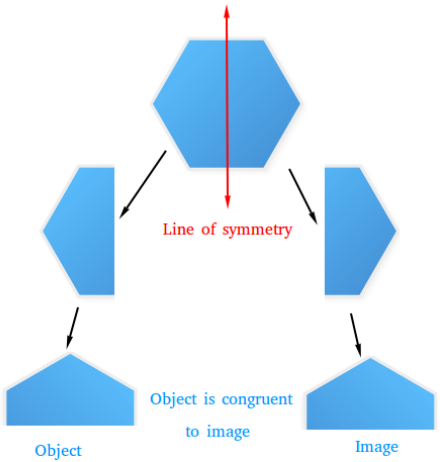
SESSION	**: 14**
CLASS	**: IV**
SUBJECT	**: MATHEMATICS**
CHAPTER NUMBER	**: 13**
CHAPTER NAME	**: GEOMETRY**
SUBTOPIC	**: SYMMETRY, EX-13 F, CLASS TEST**

LEARNING OBJECTIVE

- **Enable the students to understand the meaning of symmetry and to recall the whole chapter through the class test.**

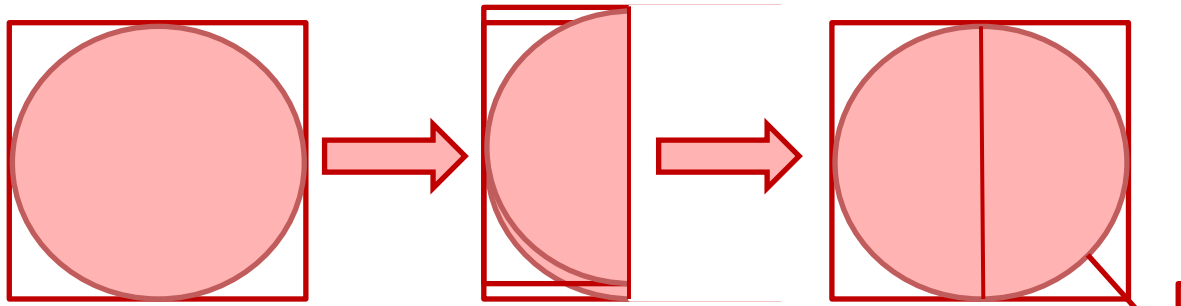
SYMMETRY

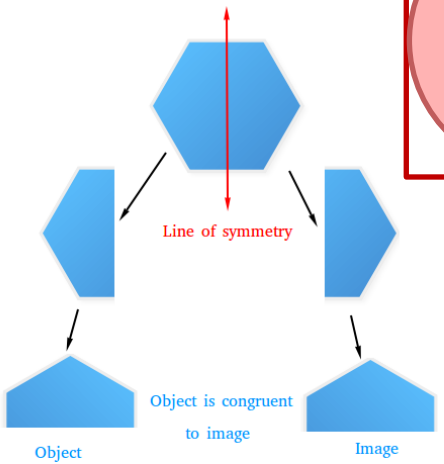
Reflection symmetry or mirror **symmetry** occurs when a line is drawn to divide a shape in two **halves** such that each half is a **reflection** of the other.



SYMMETRY

For example, take a circular paper. Fold the paper from the centre. The two halves completely overlap with each other. Thus, we say that a circle shows reflection symmetry.



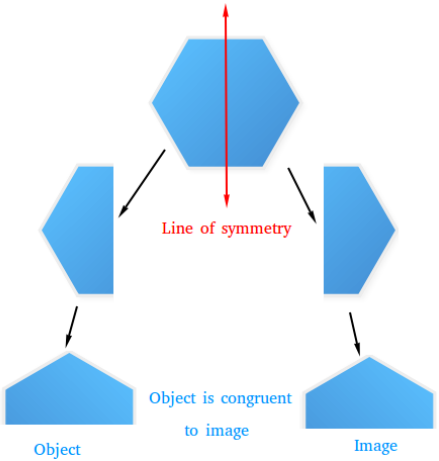


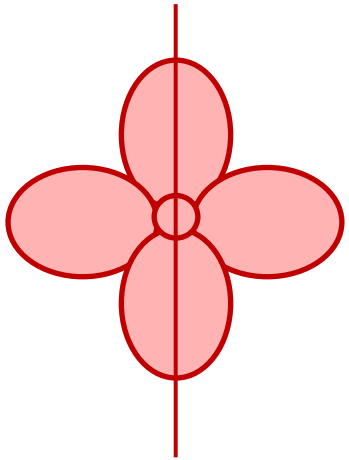
The crease that is **formed** upon **folding** the circle is known as the line of **symmetry**.

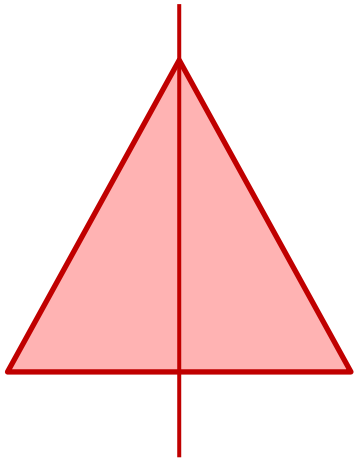
SYMMETRY

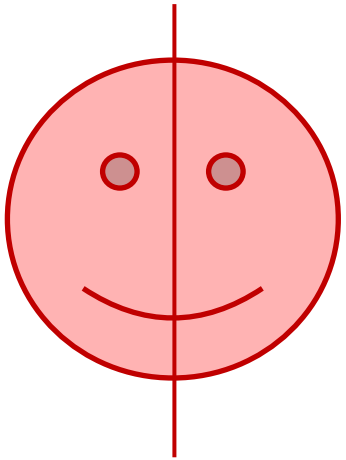
look at some more examples given below. You will observe that the left half is a mirror image of the right half and vice-versa. Therefore, theses figures are symmetrical

EXAMPLE





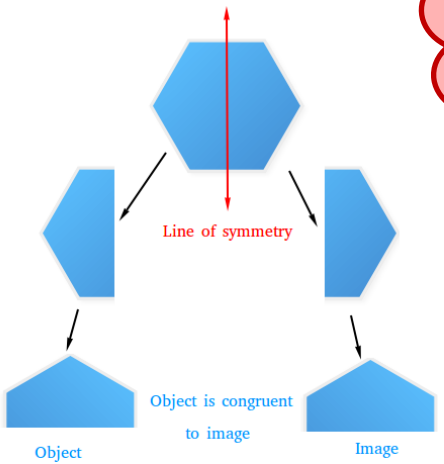


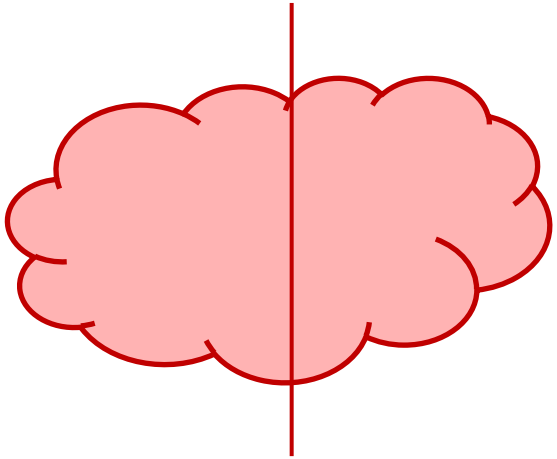


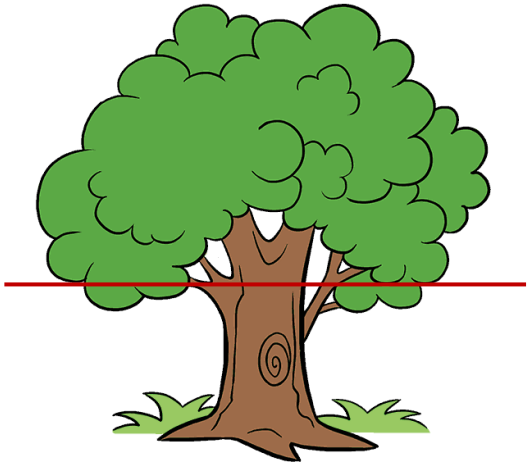
SYMMETRY

Not all figures are symmetrical. Look at the following example.

EXAMPLE







Do these **figures** show **reflection symmetry** along the line of **symmetry**? No, they don't. Such figures are **asymmetrical**.

SYMMETRY

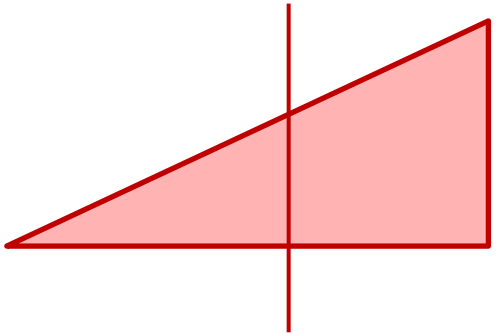
EXERCISE – 13(F)

1. Tell '**Yes**' or '**No**' whether the line drawn is a line of symmetry or not.

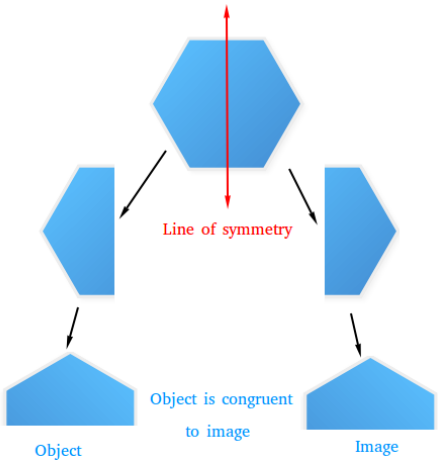
(a)

Yes

(b)



No

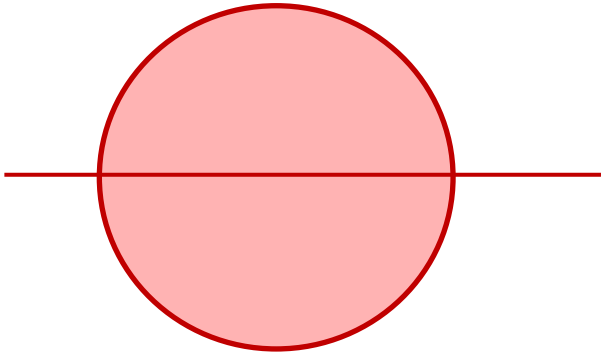


SYMMETRY

EXERCISE – 13(F)

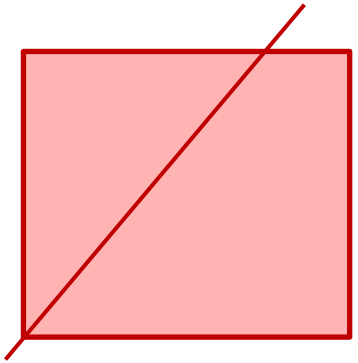
1. Tell '**Yes**' or '**No**' whether the line drawn is a line of symmetry or not.

(c)

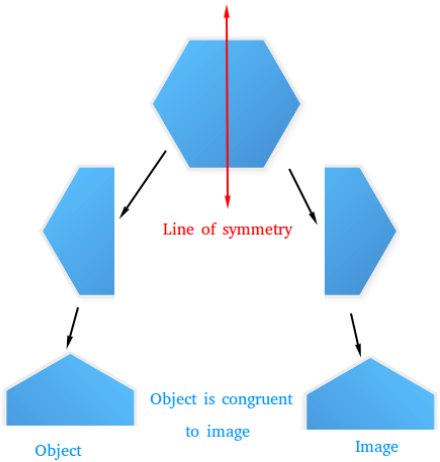


Yes

(d)



No

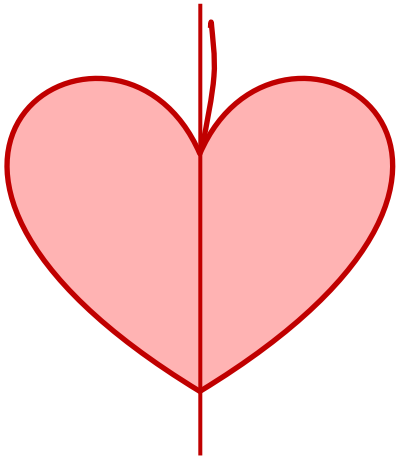


SYMMETRY

EXERCISE – 13(F)

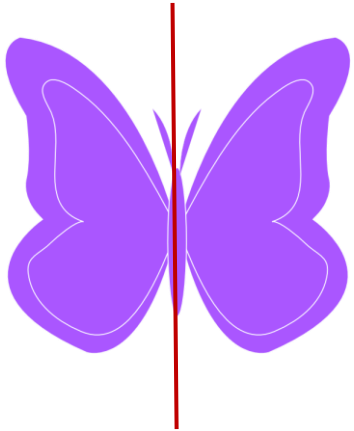
1. Tell '**Yes**' or '**No**' whether the line drawn is a line of symmetry or not.

(e)

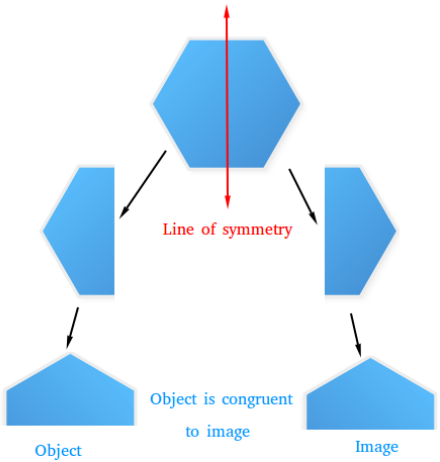


No

(f)



Yes

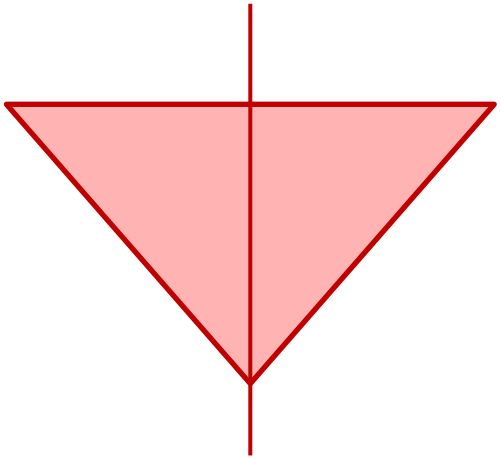


SYMMETRY

EXERCISE – 13(F)

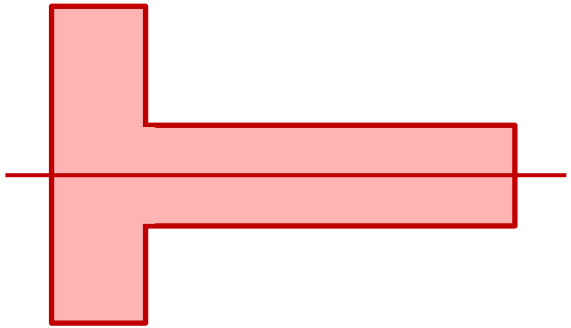
1. Tell '**Yes**' or '**No**' whether the line drawn is a line of symmetry or not.

(g)

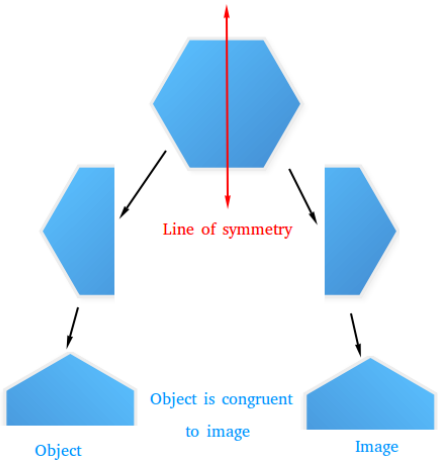


Yes

(h)



Yes

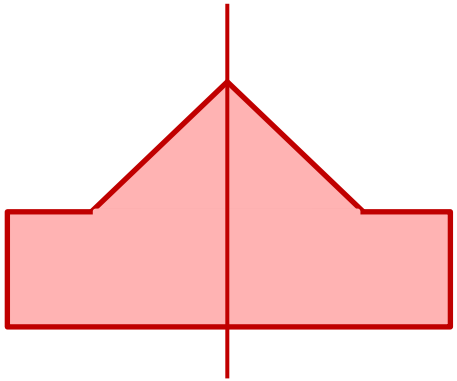


SYMMETRY

EXERCISE – 13(F)

1. Tell '**Yes**' or '**No**' whether the line drawn is a line of symmetry or not.

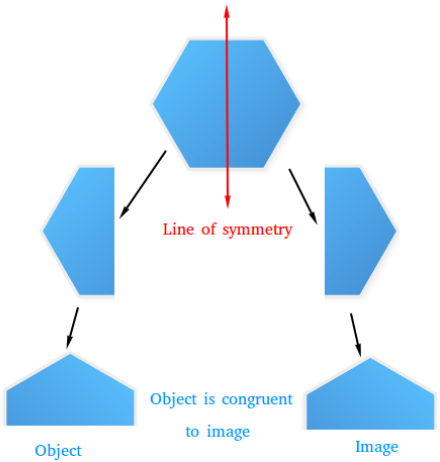
(i)



Yes

(j)

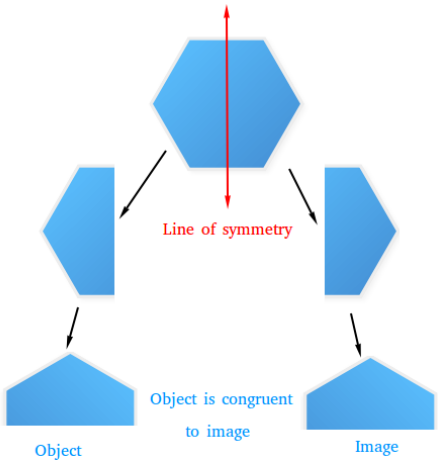
No



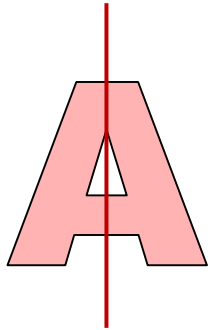
SYMMETRY

EXERCISE – 13(F)

2. Draw the line of symmetry in the alphabets given below.



(a)



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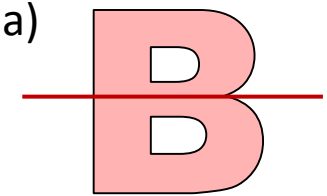
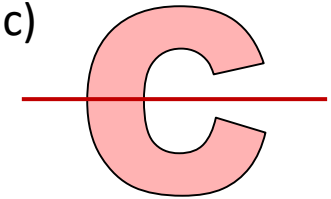
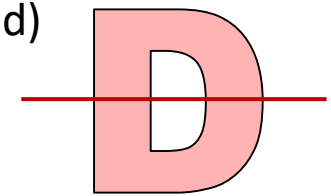


(c)



(d)



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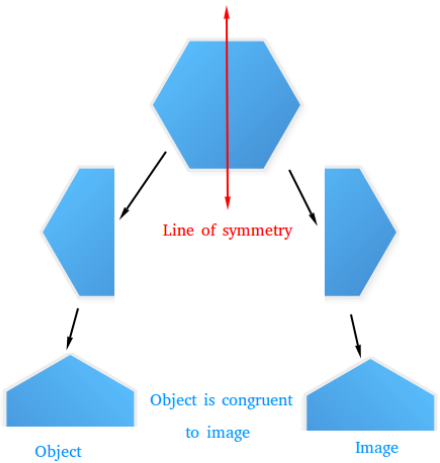
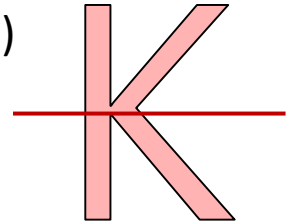
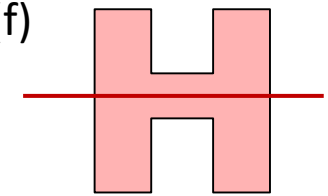


(e)



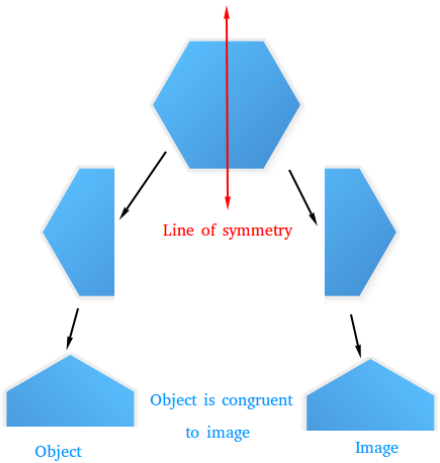
(f)



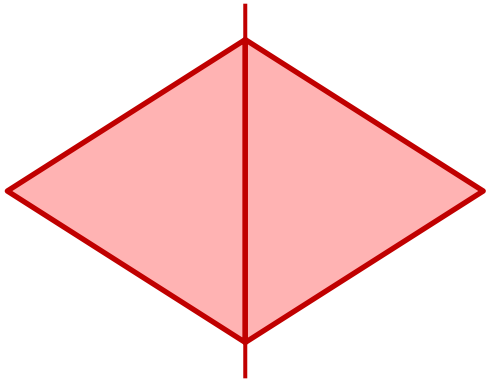
SYMMETRY

EXERCISE – 13(F)

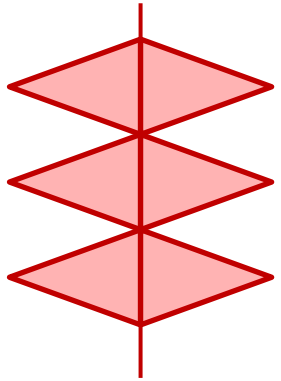
3. Complete the symmetrical figures given below. One is done for you.



(a)



(b)



SYMMETRY

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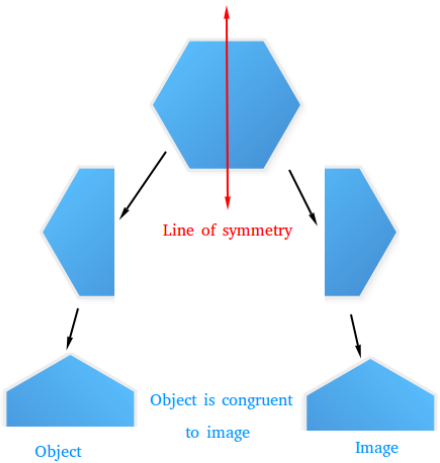

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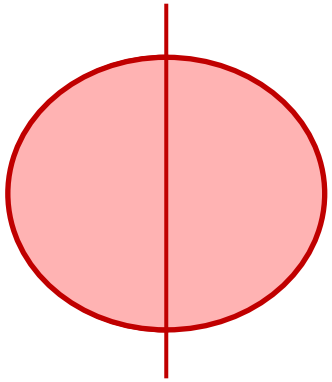
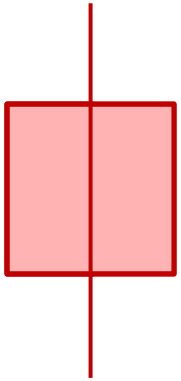


(d)



SYMMETRY

EXERCISE – 13(F)

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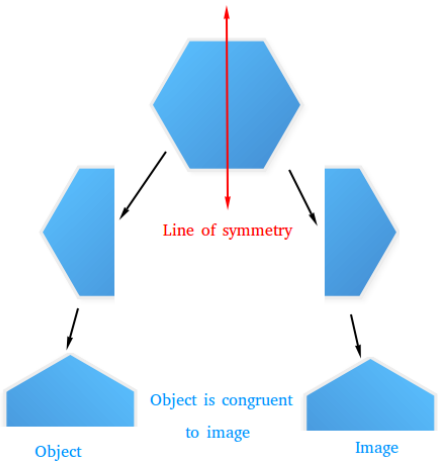
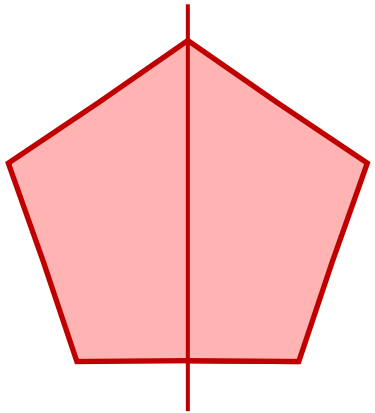
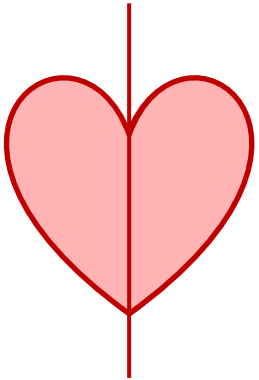


(e)



(f)



SYMMETRY

EXERCISE – 13(F)

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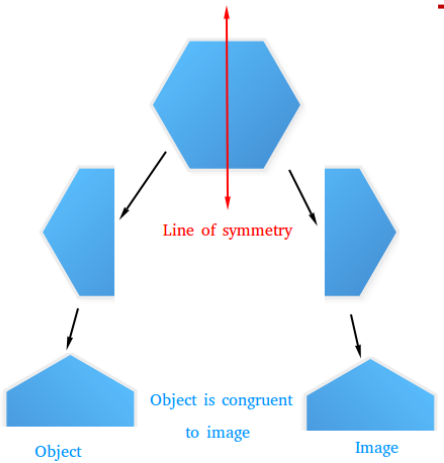
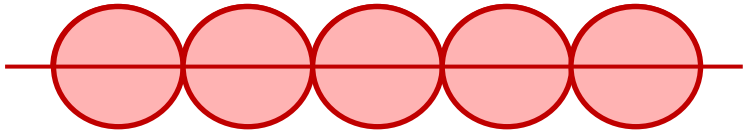
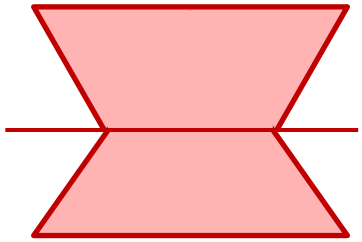


(g)



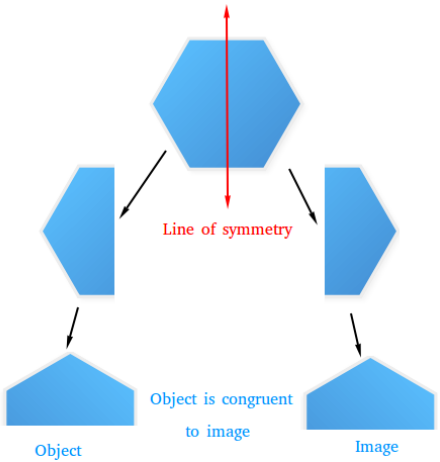
(h)



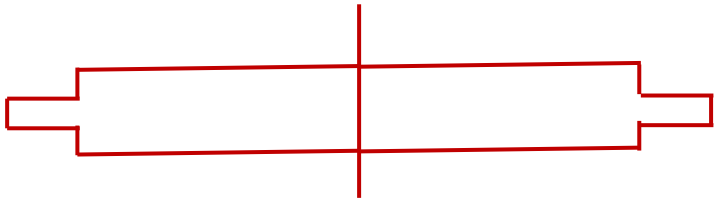
SYMMETRY

EXERCISE – 13(F)

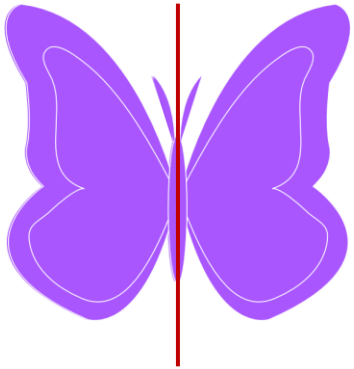
3. Complete the symmetrical figures given below. One is done for you.



(i)



(j)



CLASS TEST

FULL MARK - 10

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A. Fill in the blanks. **(1×3=3)**

1) A line has _____ end points.

2) The lines or line segments which cross each other at any point are known as _____ lines.

3) The length of the boundary of a circle is known as its _____.

CLASS TEST

FULL MARK - 10

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B. Do as Directed. **(2×2=4)**

4) Find the radius of the circle if its diameter is 42 cm.

5) Find the diameter of the circle if its radius is 24 cm.

CLASS TEST

FULL MARK - 10

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C. Answer the following. **(3×1=3)**

6) Draw a circle with the help of any circular object and mention its centre, radius and diameter?

CLASS TEST

FULL MARK - 10

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ANSWER

CLASS TEST

FULL MARK - 10

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A. Fill in the blanks. **(1×3=3)**

1) A line has _____2_____ end points.

2) The lines or line segments which cross each other at any point are _Intersecting line_ known as lines.

3) The length of the boundary of a circle is known as its **circumference**.

CLASS TEST **FULL MARK - 10**

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B. Do as Directed. **(2×2=4)**

4) Find the radius of the circle if its diameter is 42 cm.

D = 42

Radius = $\frac{Diameter}{2}$

R = $\frac{42}{2}$ = **21 cm**

Radius = 21 cm

CLASS TEST

FULL MARK - 10

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B. Do as Directed. **(2×2=4)**

5) Find the diameter of the circle if its radius is 24 cm.

R = 24

Diameter = 2 × Radius = 2 × R

D = 2 × 24 = **48 cm**

Diameter = 48 cm

CLASS TEST **FULL MARK - 10**

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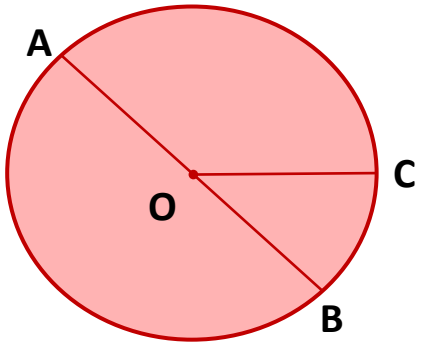
C. Answer the following. **(3×1=3)**

6) Draw a circle with the help of any circular object and mention its centre, radius and diameter?



O = Centre **OC = Radius**

AOB = Diameter

HOME ASSIGNMENT:

- **Complete Exercise – 13 F in your book.**

LEARNING OUTCOME:

Students are able to understand the meaning of symmetry and also able to recall the whole chapter through the class test.

ODM PUBLIC SCHOOL
SYMBOL OF HUMAN EXCELLENCE

THANKING YOU

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