

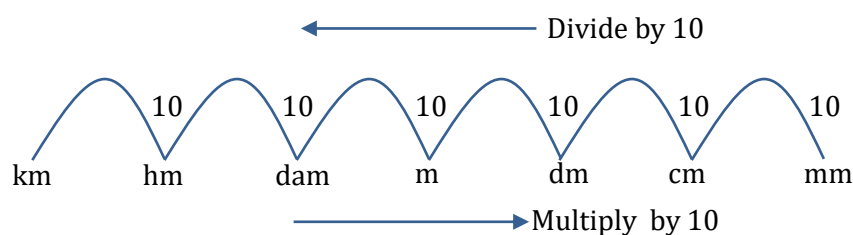


Understanding Elementary Shapes DPP-01

Multiple choice questions

1. How many millimetres make 1 centimetres?
(1) 10 (2) 100 (3) 1000 (4) None of these
2. 10 decametres _____ 10 decimetres.
(1) < (2) > (3) = (4) None of these
3. 1 decametres =
(1) 100 metres (2) 10 metres (3) 1 metres (4) None of these
4. 50000 metres = _____ kilometres.
(1) 5 (2) 50 (3) 500 (4) None of these
5. How many metres make 1 hactometre?
(1) 1 (2) 10 (3) 100 (4) 1000

SOLUTIONS DPP-01



Refer the above chart of unit conversion for length

1. **Option (1)**
10 millimetres = 1 centimetres
2. **Option (2)**
10 decametres (dam) > 10 decimetres (dm)
3. **Option (2)**
10 metres = 1 decametre (dam)
4. **Option (2)**
50000 metres = 50 kilometres
5. **Option (3)**
1 hectometre = 100 metres



Understanding Elementary Shapes DPP-02

Multiple choice questions

1. How do you compare line segments?

- (1) comparison by observation (2) comparison by tracing
(3) comparison by using ruler and divider (4) all of these

Direction for (Q.2 and Q.3) observe the images and choose the correct option related to it.



2. Which method is the easiest to compare the given line segments?

- (1) comparison by observation (2) comparison by tracing
(3) comparison by using ruler (4) comparison by using divider

3. By which method does the line segments are compared in these images?

- (1) By observation (2) By divider
(3) By ruler (4) By ruler and divider

Direction for Q.4 and Q.5.

P is the mid-point of QR, and R is the mid-point of QS.

4. Choose the correct option from below.

- (1) $QP = RS$ (2) $PR = RS$ (3) $QP = PR$ (4) $QR = PR$

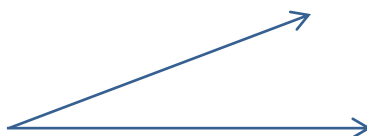
5. If $PQ = 2$ cm, then find out the incorrect one.

- (1) $RS = 2$ cm (2) $QR = 4$ cm (3) $RS = 4$ cm (4) $PR = 2$ cm

6. How many scales are marked on a protractor?

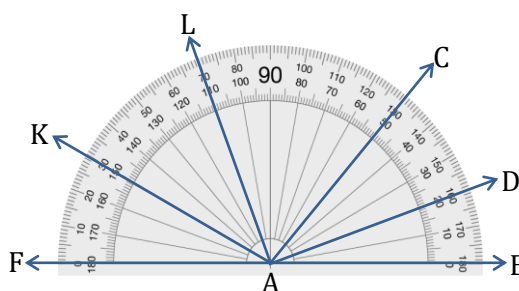
- (1) 1 (2) 2 (3) 3 (4) 4

7. If the angle opens to the right side of the protractor, Which scale are you going to use ?



- (1) Inner scale (2) Outer scale (3) Both scales can be used (4) Not specific

Direction for (Q.8 to Q.9): Refer the following diagram.



8. Measurement of $\angle BAD$ is _____.

- (1) 20° (2) 160° (3) 25° (4) 155°

9. Measurement of $\angle BAK$ is _____.
 (1) 30° (2) 110° (3) 100° (4) 150°
10. How many degrees are there in a $\frac{1}{2}$ of revolution?
 (1) 60° (2) 90° (3) 120° (4) 180°
11. Find the angles between the hands of a clock at 2 O'clock.
 (1) 30° (2) 60° (3) 90° (4) 120°
12. Where will the hour hand of a clock stop if it starts from 1 and turns through 1 right angle?
 (1) 2 (2) 3 (3) 4 (4) 5
13. Which direction will you face if you start facing North and turns 90° anticlockwise?
 (1) East (2) South (3) West (4) South-West
14. What is the measure of an angle which is formed while moving clockwise from East to South-west direction?
 (1) 45° (2) 90° (3) 135° (4) 180°
15. **Match the column**
- | When the hour hand of the clock:- | Reaches at |
|---|------------|
| (1) Starts at 12 and make $\frac{1}{2}$ of a revolution clockwise | (A) 2 |
| (2) Starts at 2 and make $\frac{1}{2}$ of a revolution clockwise | (B) 8 |
| (3) Starts at 7 and make $\frac{1}{4}$ of a revolution clockwise | (C) 6 |
| (4) Starts at 5 and make $\frac{3}{4}$ of a revolution clockwise | (D) 10 |
16. **Fill in the blanks**
- Compare the given line segments: ($>$, $<$, $=$)
- (1) $AB = 6\text{cm}$ $CD = 8\text{cm}$
 (2) $PQ = 8\text{cm}$ $RS = 2\text{cm}$
 (3) $DE = 5\text{cm}$ $RS = 9\text{cm}$
- Subjective Questions**
17. What fraction of a clockwise revolution does the hour hand of a clock turn through when it goes from.
 (i) 1 to 10
 (ii) 7 to 10
18. At 12 : 45, which type of angle is formed and also define it.
19. Draw a line segment $AB = 6\text{cm}$. A point C lies 2 cm from point A. What is the length of BC ?
20. Draw 105° angle by using protractor.

SOLUTIONS DPP-02

1. **Option (4)**

Comparison of line segments can be done by observation, by tracing, by using ruler too so for that it is all of these.

2. **Option (1)**

Here in the image, it is easiest to compare them by observation only.

3. **Option (2)**

Here line segments are compared by using divider.

Refer it for (Q 4 & Q 5)

4. **Option (3)**

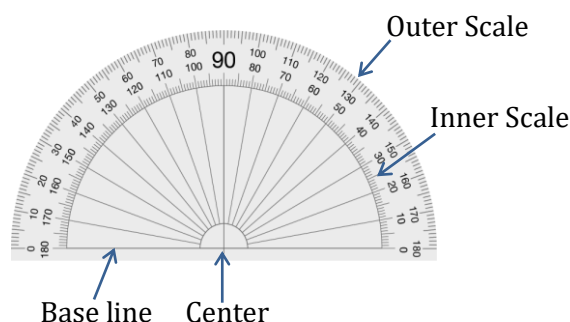
QP and PR is having the same length as P is the mid-point of QR.

5. **Option (1)**

R is the mid-point of QS so length of RS = QR and length of RS is 4 cm.

6. **Option (2)**

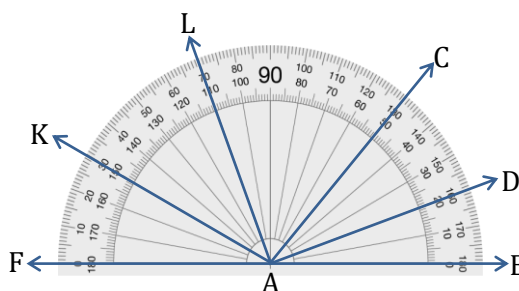
In a protractor there are two scales (1) Inner scale (2) Outer scale

7. **Option (1)**

Inner scale is used to measure an angle that opens at right side.

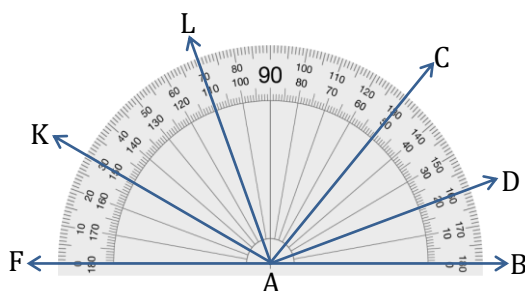
8. **Option (1)**

20° is the measure of $\angle BAD$ as it opens at right side so measure it through the inner scale of a protractor.



9. Option (4)

150° is the measure of $\angle BAK$ as it opens at right side so measure it through the inner scale of a protractor.

**10. Option (4)**

In one complete revolution = 360°

$$\text{So, } \frac{1}{2} \text{ revolution} = \frac{1}{2} \times 360^\circ = 180^\circ$$

11. Option (2)

In 12 hours rotation of hour hand = 360°

$$\text{So, in an hour it takes revolution} = \frac{360^\circ}{12} = 30^\circ$$

So, in 2 hours it takes revolution of $30 \times 2 = 60^\circ$

12. Option (3)

In 12 hours rotation of hour hand = 360°

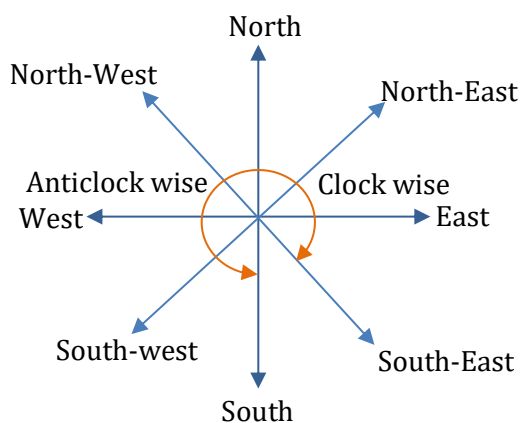
$$\text{So, in an hour it takes revolution} = \frac{360^\circ}{12} = 30^\circ$$

1 right angle = 90°

$$\text{So, } \frac{90}{30} = 3 \text{ hours}$$

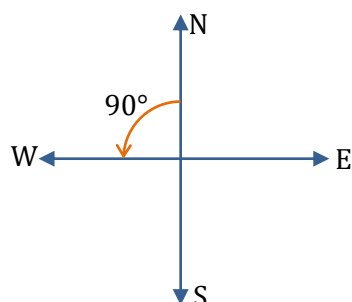
There for after 3 hours of 1 O' clock is 4 O'clock.

Refer the diagram for Q.13 to Q.14

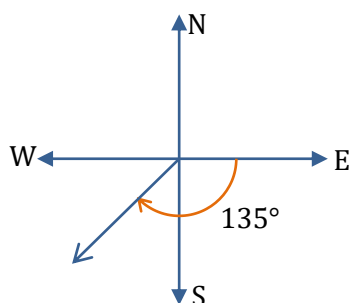


13. Option (3)

The degree of angle between two main direction is 90° . So, if you turn through 90° anticlockwise from North you will be facing West direction.

**14. Option (3)**

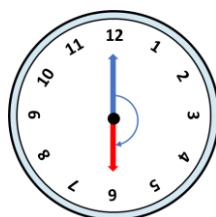
Moving from East to South-West, the angle of rotation = $45^\circ \times 3 = 135^\circ$

**15. Match the column**

(1) We know that one complete clockwise revolution of hour hand will rotate by 360°

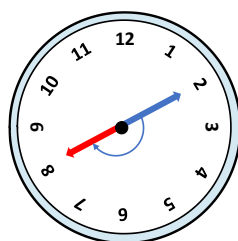
When hour hand of a clock starts at 12 & makes $\frac{1}{2}$ revolution clockwise it will rotate by 180°

Hence the hour hand of a clock will stop at 6. (C)



(2) We know that hand of a clock when starts at 2 & makes $\frac{1}{2}$ revolution clockwise, it will rotate by 180° .

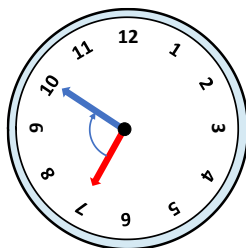
Hence the hour hand of a clock will stop at 8. (B)



(3) When hour hand of a clock starts at 7 & makes $\frac{1}{4}$ revolution clockwise it will rotate by 90° .

It will stop at 10.

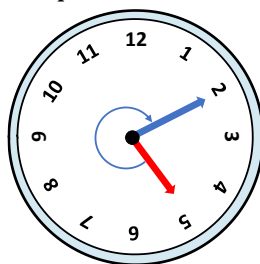
(D)



(4) When hour hand of a clock starts at 5 & makes $\frac{3}{4}$ revolution clockwise it will rotate by 270° .

Hence hour hand of a clock will stop at 2.

(A)



16. Compare line segment

(1) $AB < CD$

(2) $PQ > RS$.

(3) $DE < RS$

17. (i) 1 to 10

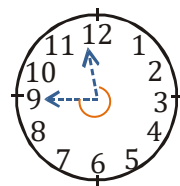
When hour hand goes from 1 to 10 clockwise it will rotate by 3 right Angle = 270°

$$\text{Fraction} = \frac{270^\circ}{360^\circ} = \frac{3}{4}$$

(ii) When hour hand goes from 7 to 10 clockwise It will rotate by 1 right Angle (90°)

$$\text{Fraction} = \frac{90^\circ}{360^\circ} = \frac{1}{4}$$

18. at 12 : 45, Angle = 270° Reflex Angle.



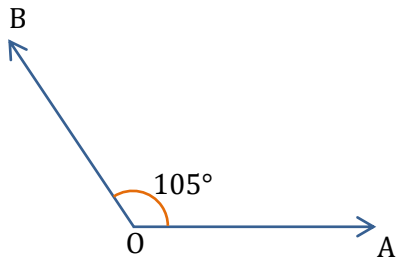
19.



$$CB = AB - AC$$

$$= 6 - 2 = 4\text{cm}$$

20.



Step 1 : Draw Ray \overrightarrow{OA}

Step 2 : Meet the centre of protractor to point A.

Step 3 : Mark the angle 105° on the inner scale as point B

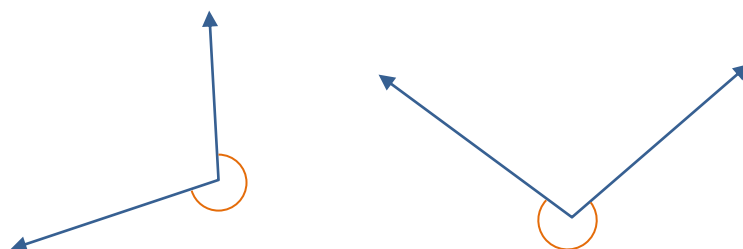
Step 4 : meet O to B to draw \overrightarrow{OB} $\angle AOB$ is the required angle.



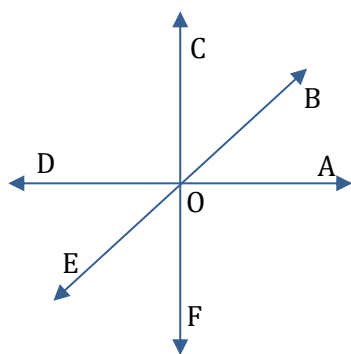
Understanding Elementary Shapes DPP-03

Multiple choice questions

- If the initial and final position of a ray coincide without making any rotation so the angle formed is called _____.
 (1) An acute angle (2) An obtuse angle
 (3) A zero – degree angle (4) A complete angle
- Name the angle formed at each corner of a rectangle.
 (1) An acute angle (2) A right angle (3) An obtuse angle (4) A straight angle
- If two lines intersect such that four vertical angles are equal, then measure of each angle is _____.
 (1) 45° (2) 90° (3) 150° (4) 180°
- Which type of angle you can observe in the given image?



- (1) An obtuse angle (2) A reflex angle (3) An acute angle (4) A right angle
- Directions for (Q.5 and Q.6) :** Refer the image and answer the following.



- Which type of angle is $\angle BOD$?
 (1) An acute angle (2) A right angle (3) An obtuse angle (4) a straight angle
- Which of the following is a reflex angle? (When move in clockwise direction from point A)
 (1) $\angle AOF$ (2) $\angle DOB$ (3) $\angle EOA$ (4) $\angle BOF$
- Three or more lines which pass through same point are called _____.
 (1) Intersecting lines (2) Parallel lines
 (3) Perpendicular lines (4) Concurrent lines
- Geometrical figure which has no dimension is _____.
 (1) Line (2) Line segment (3) Plane (4) Point

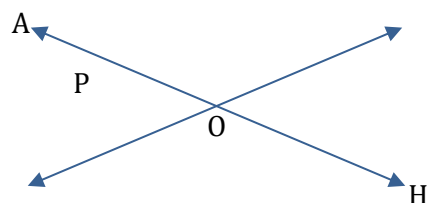
9. The lines which do not intersect each other and have equal distance between them are called:

- (1) Parallel Lines (2) Intersecting Lines
(3) Straight Lines (4) Perpendicular Lines

10. A line segment has definite

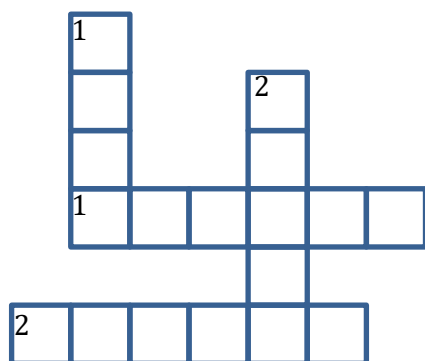
- (1) Breadth (2) Length (3) Thickness (4) Area

11. Name the point of intersection in the given figure.



- (1) P (2) A (3) O (4) B

12. **CROSS WORD**



Left to Right

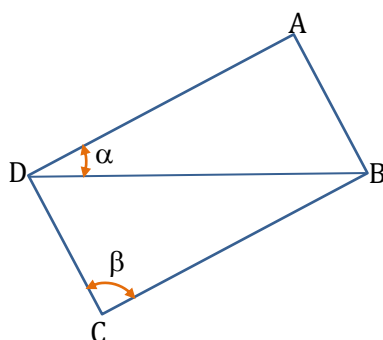
1. An angle which is $90^\circ < x < 180^\circ$
2. An angle which is $180^\circ < x < 360^\circ$

Top to Bottom

1. 0°
2. An angle which is $0^\circ < x < 90^\circ$

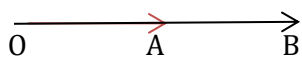
Subjective Questions

13. What do you mean by Reflex Angle?
14. What is the difference between parallel & perpendicular lines.
15. By using the three letters on the shape that define the angle, how can write angle β ?



SOLUTIONS DPP-03

1. Option (3)



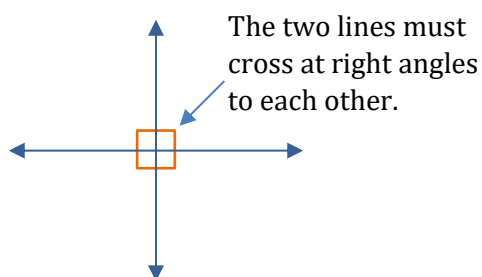
Both rays are indicating same direction and not forming any angle between them. So, zero-degree angle is formed between them.

2. Option (2)



In rectangle adjacent sides are perpendicular to each other so form right angle.

3. Option (2)

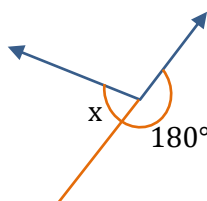
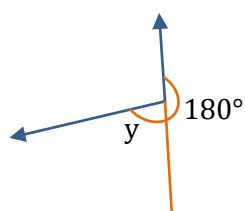


When two lines are perpendicular then all its vertically opposite angles are equal.

$$\frac{360^\circ}{4} = 90^\circ$$

4. Option (2)

The measure of angles in both images, is greater than 180° but less than 360° so, its reflex angle.



5. Option (3)

$\angle BOD$ is more than 90° but less than 180° there for it's an obtuse angle.

6. Option (3)

$\angle EOA$ is more than straight angle but less than complete angle. So, it is a reflex angle.

7. Option (4)

Three or more lines which pass through same point are called concurrent lines.

8. Option (4)

Geometrical figure which has no dimension is point.

9. Option (1)

Lines that never meet and are always at equal distance from each other are called parallel lines.

10. Option (2)

A line segment has definite length.

11. Option (3)

O is intersection point of two lines.

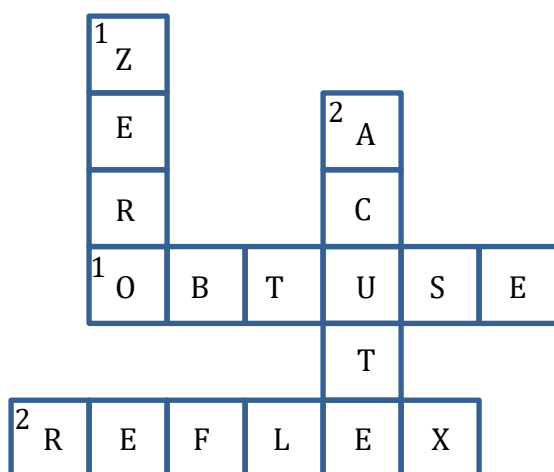
12. Crossword puzzle

L – R (1) Obtuse

(2) Reflex

T – R (1) Zero

(2) Acute



13. Reflex Angle – An angle of magnitude more than 180° & less than 360° is called reflex angle.
Eg. 270° , 235° , 310° .

14. Parallel lines never intersect.

Perpendicular lines intersect at 90° .

15. The middle letter is where the angle actually is (its vertex), which is C.

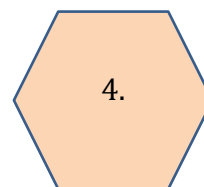
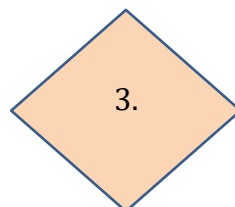
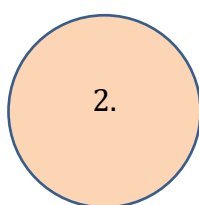
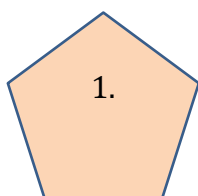
Therefore, we could write the angle as $\angle BCD$ or $\angle DCB$.



Understanding Elementary Shapes DPP-04

Multiple choice questions

- Name of polygon with 6 sides.
(1) Quadrilateral (2) Triangle (3) Hexagon (4) Pentagon
- A Polygon has all interior angles as well as all sides are equal then it is _____ polygon.
(1) Regular (2) Irregular (3) Curve (4) None
- Which of the following figure is a Pentagon?



- (1) Figure 1 (2) Figure 2 (3) Figure 3 (4) Figure 4
- Sum of all interior angles of 4-sided polygon is _____.
(1) 300° (2) 320° (3) 360° (4) 180°
- Name the type of triangle: Triangle with lengths of sides 7cm, 8cm, 9cm is _____.
(1) Equilateral Triangle (2) Isosceles Triangle
(3) Scalene Triangle (4) None of these
- If any angle of a triangle is greater than 90° , then the triangle is called _____.
(1) An acute angled triangle (2) An obtuse angled triangle
(3) A right-angled triangle (4) None of these.
- In a triangle, the sum of any two sides of a triangle is always _____ the third side.
(1) Equal to (2) Less than (3) Greater than (4) None of these

Subjective Questions

- Find each exterior angle, if number of sides is 8?
- If two angles of a triangle are 50° and 60° , then find the third angle.
- How many diagonals are there in a triangle?

SOLUTIONS DPP-04

1. **Option (3)**

Hexagon has 6 sides.

2. **Option (1)**

A regular polygon is a polygon with all its sides and all its angles equal.

3. **Option (1)**

Figure 1 is a Pentagon.

4. **Option (3)**

Sum of all interior angles of a 4-sided polygon is 360° .

5. **Option (3)**

A scalene triangle is one that has all sides unequal.

6. **Option (2)**

If any angle of a triangle is greater than 90° then the triangle is called Obtuse angled triangle.

7. **Option (3)**

In a triangle, the sum of any two sides of a triangle is always greater than the third side.

8. Each exterior angle = $\frac{360^\circ}{8} = 45^\circ$ 9. Third angle = $180^\circ - (50^\circ + 60^\circ) = 70^\circ$.

10. A line joining the non-adjacent vertices of a polygon is called a diagonal of polygon. A Triangle has no diagonals.



Understanding Elementary Shapes DPP-05

Multiple choice questions

- What is the sum of the measures of all interior angles of a convex quadrilateral?
(1) 180° (2) 360° (3) 480° (4) 120°
- How many diagonals does a concave quadrilateral have?
(1) 2 (2) 4 (3) 3 (4) 0
- Name the polygon with 4 sides.
(1) Quadrilateral (2) Triangle (3) Circle (4) Pentagon
- If three angles of a quadrilateral are each equal to 75° , the fourth angle is
(1) 150° (2) 135° (3) 45° (4) 75°
- The sum of all exterior angle of any convex quadrilateral is _____.
(1) 540° (2) 180° (3) 360° (4) None of these
- Which of the following polygons is convex polygon?

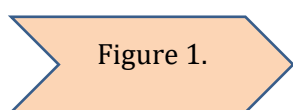


Figure 1.

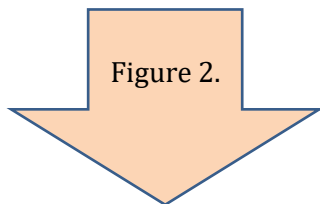


Figure 2.

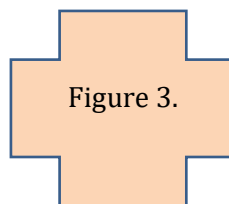


Figure 3.

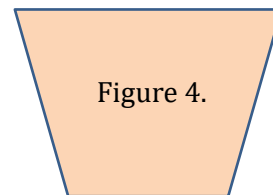
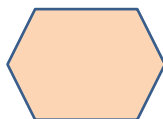


Figure 4.

- (1) Figure 1 (2) Figure 2 (3) Figure 3 (4) Figure 4
- How many sides are there in the following figure?



- (1) 2 (2) 5 (3) 6 (4) 7
- How many diagonals are there in a following figure?



- (1) 2 (2) 4 (3) 3 (4) 1
- How many vertices are there in a concave quadrilateral?
(1) 3 (2) 4 (3) 2 (4) 6
 - The angles of a quadrilateral are 60° , 90° , 90° . Find the fourth remaining angle.
(1) 130° (2) 100° (3) 160° (4) 120°

11. True/False

- (i) Parallelogram has both the diagonals equal.
- (ii) The diagonals of rectangles are perpendicular to each other.
- (iii) All the four sides of a rhombus are equal.

Subjective Questions

- 12.** If angle of quadrilateral are in ratio 4 : 5 : 3 : 6 find each of the angle ?
- 13.** The Interior angles of an irregular quadrilateral have the following measures x° , 60° , $3x^\circ$ and 40° . What is the value of x ?
- 14.** Explain the difference between square and rectangle.
- 15.** Explain similarity between rhombus and parallelogram.

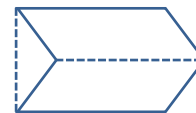
SOLUTIONS DPP-05

1. Option (2)

The sum of the measures of angles of a convex quadrilateral is 360° .

2. Option (1)

One diagonal lies inside the concave quadrilateral. While the other diagonal lies outside the concave quadrilateral.



3. Option (1)

Quadrilateral is the four-sided polygon.

4. Option (2)

The fourth angle of quadrilateral is $360^\circ - (75^\circ + 75^\circ + 75^\circ) = 135^\circ$

5. Option (3)

The sum of all exterior angle of any convex quadrilateral is 360°

6. Option (4)

Figure 4 is convex polygon.

In convex polygon all interior angles are less than 180° .

7. Option (3)

A hexagon has 6 sides 6 interior angles and 6 vertices.

8. Option (1)

A quadrilateral has 2 diagonals.

9. Option (2)

A quadrilateral has four sides, four vertices and four angles.

10. Option (4)

We know from the angle sum property that the sum of the angles of a quadrilateral are 360° .

Let the fourth angle be denoted by x° .

So,

$$60^\circ + 90^\circ + 90^\circ + x^\circ = 360^\circ$$

$$\Rightarrow 180^\circ + 60^\circ + x^\circ = 360^\circ$$

$$\Rightarrow 240^\circ + x^\circ = 360^\circ$$

$$\Rightarrow x^\circ = 120^\circ$$

11. True/False

(i) False – Parallelogram do not have both diagonals equal.

(ii) False – Diagonals of a rectangle are not perpendicular to each other.

(iii) True – All the four sides of a rhombus are equal.

12. Angle of quadrilateral = 4 : 5 : 3 : 6

Angle sum property of quadrilateral = 360°

Let angles = $4x, 5x, 3x, 6x$

$$4x + 5x + 3x + 6x = 360^\circ$$

$$18x = 360^\circ$$

$$x = \frac{360^\circ}{18} = 20^\circ$$

$$4x = 4 \times 20 = 80^\circ$$

$$5x = 5 \times 20 = 100^\circ$$

$$3x = 3 \times 20 = 60^\circ$$

$$6x = 6 \times 20 = 120^\circ$$

13. In quadrilateral

Sum of all interior angles = 360°

$$x + 60^\circ + 3x + 40^\circ = 360^\circ$$

$$4x + 100^\circ = 360^\circ$$

$$4x = 260^\circ$$

$$x = \frac{260^\circ}{4} = 65^\circ$$

$$6x = 6 \times 20 = 120^\circ$$

14. Difference between square and rectangle.

Square: all sides are equal.

Rectangle: Only opposite sides are equal.

15. Similarity :

(i) Both rhombus and parallelogram have two pair of parallel sides.

(ii) Diagonals bisect each other in case of rhombus and parallelogram.



Understanding Elementary Shapes DPP-06

Multiple choice questions

- Name the quadrilateral with property "One pair of parallel sides".
(1) Trapezium (2) Parallelogram (3) Rectangle (4) Rhombus
- Name the quadrilateral with property "Two pairs of parallel sides".
(1) Trapezium (2) Parallelogram (3) Square (4) Rhombus
- Name the quadrilateral with property "Parallelogram with 4 sides of equal length".
(1) Trapezium (2) Rectangle (3) Kite (4) Rhombus
- Name this quadrilateral with property "A rhombus with 4 right angles".
(1) Square (2) Rectangle (3) Parallelogram (4) Trapezium
- Opposite sides of a parallelogram are always
(1) Unequal (2) Equal (3) Greater (4) None of these
- Diagonals of a rhombus _____.
(1) Bisect each other at right angles (2) Are equal
(3) Both (1) and (2) (4) None of these
- Every Rhombus is a
(1) Square (2) Parallelogram (3) Rectangle (4) None of these
- A quadrilateral whose all the sides, diagonals and angles are equal is a _____.
(1) Square (2) Rhombus (3) Rectangle (4) Trapezium
- In a kite DRUM, side DR = 6cm then,
(1) RU = 6cm (2) UM = 6cm (3) MD = 6cm (4) Can't say
- In a rectangle FACE, FC = 5cm then which of the following is correct?
(1) FA = 5cm (2) AC = 5cm (3) CE = 5cm (4) AE = 5cm
- PQRS is a rhombus in which side QR = 10.5cm and $\angle PQR = 68^\circ$. Find the length of side PQ.
(1) 2.1cm (2) 5.1cm (3) 10.5cm (4) 6.8cm

12. Fill in the blanks

Sides & angle

Square

Rectangle

Parallelogram

(i) Diagonals bisect

each other

.....

.....

.....

(ii) Opposite sides

equal

.....

.....

.....

Subjective Questions

13. What is the base of rhombus, if its perimeter is 32cm.
14. What are three attributes of a quadrilateral.
15. How can we say trapezium different from parallelogram?

SOLUTIONS DPP-06

1. Option (1)

Trapezium: only one pair of opposite sides is parallel.

2. Option (2)

Parallelogram has both pairs of opposite sides parallel.

3. Option (4)

A Parallelogram in which all the sides are equal is called rhombus.

4. Option (1)

A rhombus in which each angle is a right angle is called square.

5. Option (2)

Opposite sides of a parallelogram are always equal.

6. Option (1)

Diagonals of rhombus bisect each other at right angle (90°).

7. Option (2)

Every rhombus is a Parallelogram.

8. Option (1)

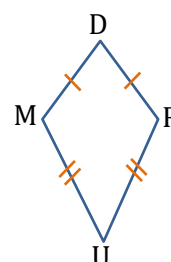
Square has all sides, all diagonals and all angles equal.

9. Option (4)

As DRUM is a kite, therefore adjacent sides are equal.

So, $DR = RU$ or $DR = MD$.

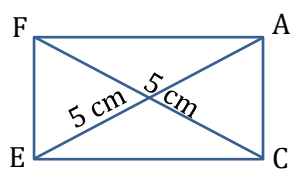
Hence can't say.



10. Option (4)

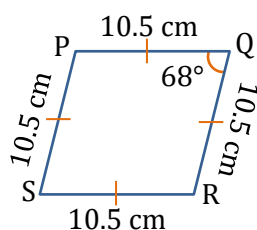
As FACE is a rectangle therefore diagonals are equal.

So, $FC = AE = 5\text{ cm}$



11. Option (3)

Rhombus has all sides equal.



So, in PQRS, $PQ = QR = RS = SP = 10.5\text{ cm}$

12. Fill in the blanks

Sides & angle	Square	Rectangle	Parallelogram
(i) Diagonals bisect each other	Yes	Yes	Yes
(ii) Opposite sides equal	Yes	Yes	Yes

13. Perimeter of rhombus = 32 cm

$$4x = 32$$

$$x = \frac{32}{4} = 8\text{cm}$$

One side of rhombus = 8cm

All sides are equal.

14. Three attributes of a quadrilateral

Four sides

Four vertices

The sum of the interior angles should be equal to 360°

15. In trapezium or trapezoid:

It has exactly one pair of sides parallel to each other.

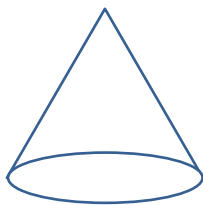
In parallelogram: 2 pair of sides are parallel to each other.



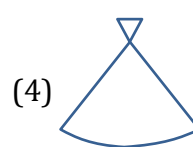
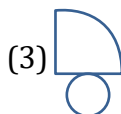
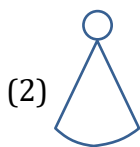
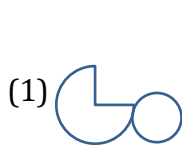
Understanding Elementary Shapes DPP – 7

Multiple choice questions

- The number of vertices of a cube is _____.
(1) 6 (2) 12 (3) 8 (4) 10
- The number of faces of a square prism is _____.
(1) 6 (2) 4 (3) 5 (4) 7
- A Cuboid has _____ rectangular faces.
(1) 3 (2) 4 (3) 5 (4) 6
- Name the solid shape given _____.



- (1) Cylinder (2) Cone (3) Cube (4) Sphere
- A cylinder has two _____ at its ends.
(1) vertices (2) circular faces (3) square faces (4) curved faces
- The sum of all the angles round a point is equal to
(1) 180° (2) 270° (3) 360° (4) 540°
- Identify the correct net of cone.



- What shape is the base of the great pyramid of Giza in Egypt?
(1) triangle (2) square (3) both (1) and (2) (4) None of these
- Euler's formula states that
(1) $F + V + E = 2$ (2) $V - F + E = 2$ (3) $V + F = E + 2$ (4) $F - V = E + 2$
- Fill in the blanks

Solid shapes

Faces

Vertices

Hexagonal prism

8

.....

Square pyramid

.....

5

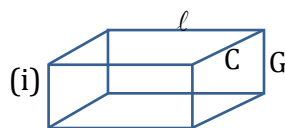
Triangular pyramid

4

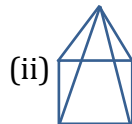
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11. 3D shapes (Match the column)

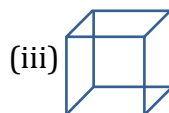
(a) Cuboid



(b) Cube



(c) Square Pyramid



- 12.** Find how many faces will it have if polygon has 4 vertices, 6 edges.
- 13.** What is meant by solid shape.
- 14.** Draw a prism a shape with two equal ends connected by rectangular sides.
- 15.** Verify Euler's formula for a cuboid.

SOLUTIONS DPP-07

1. **Option (3)**

Cube has 8 vertices.

2. **Option (1)**

Square prism has 6 faces.

3. **Option (4)**

A cuboid has 6 rectangular faces.

4. **Option (2)**

Given shape is cone.

5. **Option (2)**

The two ends of a cylinder are plane faces, namely top and base are circular in shape.

6. **Option (3)**

Sum of all angles round a point is equal to 360°

7. **Option (1)**

Net of cone : -

8. **Option (2)**

The great pyramid of Giza in Egypt has a square base of 279m long.

9. **Option (3)**

Euler's formula states that $F + V - E = 2$ or $V + F = E + 2$

10. Fill in the blanks

Find the

Solid shapes	Faces	Vertices
Hexagonal prism	8	12
Square pyramid	5	5
Triangular pyramid	4	4

11. (a) Cuboid

(i) it will be made by rectangle

(b) Cube

(iii) cube has all sides are equal faces are square.

(c) Square pyramid

(ii) base is square

12. Euler's formula. $F + V = E + 2$

Given, $v = 4$

$$E = 6$$

$$F + 4 = 6 + 2$$

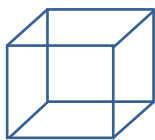
$$F = 8 - 4$$

$$F = 4$$

13. Solid shape: Object that occupy space are called solid shape. Their surface is called faces.

Ex. Cube, cuboid, cylinder

14.



15.

For a cuboid,

Number of faces = 6

Number of edges = 12

Number of vertices = 8

According to Euler's formula: $F + V - E = 2$

$$F + V - E = 6 + 8 - 12 = 14 - 12 = 2$$

L.H.S. = R.H.S.