

G. BASIC GEOMETRICAL IDEAS
Class: VI, MATHEMATICS⁽⁰¹⁾
FOUNDATION, SOLUTIONS

TEACHING TASK
MAINS LEVEL

2025/26

01. No. of lines = $\frac{n(n-1)}{2}$

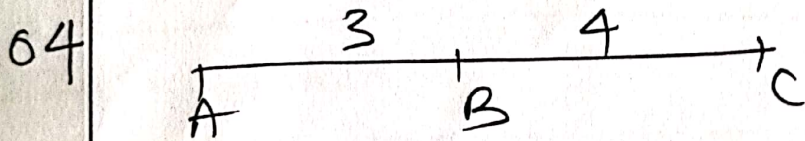
Ans. B

02. $V + F = E + 2$
 $8 + 6 = E + 2 \Rightarrow E = 12$

Ans. A

03. $QR = PR - PQ = 10 - 3 = 7\text{cm}$

Ans. B



~~BC~~ $BC = 4 \text{ units} = 24 \text{ cm}$

$1 \text{ unit} = 6 \text{ cm}$

$\therefore AB = 3 \text{ units} = 3 \times 6 = 18 \text{ cm}$

$AC = 7 \text{ units} = 7 \times 6 = 42 \text{ cm}$

Ans. D

05. $4CD - 2AB = 4(4.5) - 2(6)$
 $= 18 - 12 = 6 \text{ cm}$

Ans. D

06. $AB = 42 \times \frac{3}{2} = 63 \text{ cm}$

$\therefore AB > BC$

$BC = 42 \times \frac{2}{7} = 12 \text{ cm}$

Ans. C



07. $CD = 2x + 5 = 13$ (2)
 $\therefore x = 4$
 $\therefore AB + CD + DA = (5x + 20) + (x + 10) + (2x + 5)$
 $= 8x + 35$
 $= 8(4) + 35$
 $= 67 \text{ cm}$ Ans: A

08 Conceptual Ans: C

09 Conceptual Ans: A

10 $AB - CD = 4.6 - 3.8 = 0.8 \text{ cm}$ Ans: C

ADVANCED LEVEL

01 Conceptual Ans: A, C, D

02 Conceptual Ans: A, B, D

03 Statement I: Conceptual (True)
Statement II: Conceptual (False) Ans: C

04 Statement I: Conceptual (True)
Statement II: Conceptual (False) Ans: C

05 Assertion: Conceptual (~~False~~) (True)
Reason: Conceptual (False) Ans: C

06 Assertion: Conceptual (True)
Reason: Conceptual (True) Ans: A

07. Conceptual

Ans: ⁽³⁾C

08. Conceptual

Ans: B

09 $AB = 19.6 \times \frac{7}{4} = 34.3 \text{ cm}$

$$BC = 37.9 - 12.4 = 25.5 \text{ cm}$$

$$CD = 30.1 + 4.6 = 34.7 \text{ cm}$$

$$DE = 2.7 \times 8 = 21.6 \text{ cm}$$

$$AB + BC = 34.3 + 25.5 = 59.8$$

$$DE + BC = 21.6 + 25.5 = 47.1$$

$$\therefore AB + BC > DE + BC$$

Ans: A

10.
$$\begin{aligned} X &= AB + BC + CD - DE \\ &= 34.3 + 25.5 + 34.7 - 21.6 \\ &= 72.9 \text{ cm} \end{aligned}$$

Ans: A

11. $n = 5$

$$\text{No. of Lines} = \frac{n(n-1)}{2} = \frac{5 \times 4}{2} = 10$$

Ans: 10

12. $n = 12$

$$\begin{aligned} \text{Sum of Interior angles} &= (n-2) \times 180^\circ \\ &= (12-2) \times 180^\circ \\ &= 1800^\circ \end{aligned}$$

Ans: 1800

13 a) $180^\circ (Q)$

b) $r = \frac{10}{2} = 5 \text{ cm} (P)$

c) $n = 10 (r)$

d) $90^\circ (S)$

Ans. Q, P, r, S

14 a) 0 (P)

b) 2 (r)

c) $n = 5$ Lines

No. of ~~diagonals~~ = $\frac{n(n-1)}{2} = \frac{5 \times 4}{2} = 10$

$\therefore$ No. of diagonals = $10 - 5 = 5 (Q)$

d) $n = 6$

No. of lines = $\frac{6 \times 5}{2} = 15$

No. of diagonals = $15 - 6 = 9 (S)$

Ans: P, r, Q, S

LEARNERS TASK (CUE'S)

01. Conceptual

Ans. B

02. Conceptual

Ans: A

03. Conceptual

Ans: C

04. $1 \text{ km} = 1000 \text{ m}$

Ans. A

05. $AB + 2CD = 6 + 2(4) = 14$

Ans. D

06. $AB > CD$

Ans. B

07.

67

A B C D E

$n=5$

$$\text{No. of Line Segments} = \frac{n(n-1)}{2} = \frac{5 \times 4}{2} = 10$$

Ans.. A

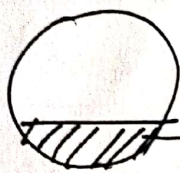
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Ans.. A

08

Conceptual

09

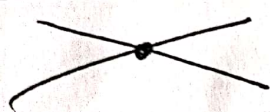


Segment

Ans: B

Ans: D

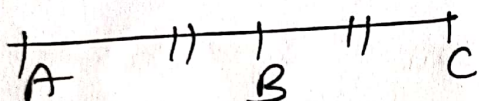
10



one point

JEE MAINS LEVEL

01



Ans: BD

02

$$1 \text{ hectometer} = 100 \text{ mt}$$

$$= 100 \times x \text{ mt} \Rightarrow x = 1$$

Ans: A

03

$$35 \text{ cm} = 35 \times 1 \text{ cm}$$

$$= 35 \times \frac{1}{100} \text{ mt}$$

$$= 0.35 \text{ mt}$$

Ans.. A

Ans: C

04

Conceptual

Ans.. A

05

Conceptual

Ans. B

06

10 cm

07

$$x + 10 = 5 \Rightarrow x = -5$$

$$\therefore AB + BC = 5 + 0 = 5$$

Ans: A

08	Conceptual	Ans. D ⁽⁶⁾
09	Conceptual	Ans. D
10	P, q, R	Ans. C
ADVANCED LEVEL		
01	Conceptual	Ans. A, C
02	Conceptual	Ans. A, C
03	<u>statement I</u> : Conceptual (True) <u>statement II</u> : Conceptual (False)	Ans. C
04	<u>statement I</u> : Conceptual (True) <u>statement II</u> : Conceptual (False)	Ans. C
05	<u>Assertion</u> : Conceptual (True) <u>Reason</u> : Conceptual (True)	Ans. A
06	<u>Assertion</u> : Conceptual (True) <u>Reason</u> : Conceptual (True)	Ans. A
07	Conceptual	Ans. C
08	Conceptual	Ans. D
09	Conceptual	Ans. A
10	Conceptual	Ans. B

11. Total length = $5 \times 6 = 30 \text{ cm}$

⑦ Ans: 30

12. Circumference = $2\pi r = 2 \times \frac{22}{7} \times 14 = 88 \text{ cm}$
Ans: 88

- 13
- a) Conceptual (P)
 - b) Conceptual (Q)
 - c) Conceptual (R)
 - d) Conceptual (S)

Ans: P, Q, R, S

- 14
- a) Conceptual (R)
 - b) Conceptual (Q)
 - c) Conceptual (P)
 - d) Conceptual (S)

Ans: R, Q, P, S

$\Rightarrow$ THE END $\Leftarrow$