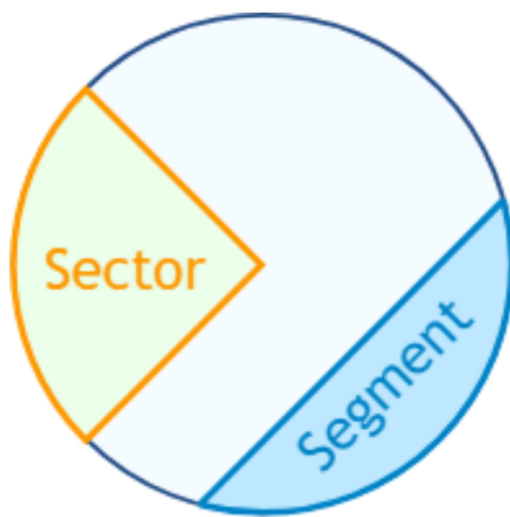




MATHEMATICS - 10TH

IMPORTANT MCQ'S - MATHS (10TH GRADE)



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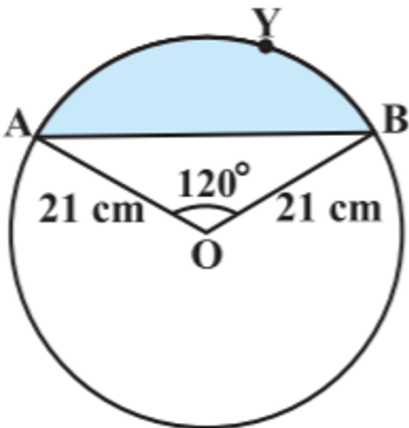
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Material Curated by
Er. Sonal Agrawal Sir
Ex. Scientist , BARC Mumbai



10th - Maths

SN		Marks
1	Find the area of the minor sector of a circle with radius 4 cm and of angle 30° . (a) 4 cm^2 (b) 5.2 cm^2 (c) 4.19 cm^2 (d) 5.25 cm^2	1
2	 <p>Find the area of the segment AYB shown in the above image, if radius of the circle is 21 cm and $\angle AOB = 120^\circ$. (Use $\pi = \frac{22}{7}$)</p> <p>(a) $\frac{21}{3} (88 - 21\sqrt{3}) \text{ cm}^2$ (b) $\frac{21}{4} (78 - 21\sqrt{3}) \text{ cm}^2$ (c) $\frac{21}{4} (88 - 21\sqrt{5}) \text{ cm}^2$ (d) $\frac{21}{4} (88 - 21\sqrt{3}) \text{ cm}^2$</p>	3
3	Find the area of a quadrant of a circle whose circumference is 22 cm. (a) 6.3 cm^2 (b) 6.9 cm^2 (c) 9.6 cm^2 (d) 9.3 cm^2	1
4	In a circle of radius 21 cm, an arc subtends an angle of 60° at the centre. Find area of the sector formed by the arc. (a) 231 cm^2 (b) 220 cm^2 (c) 220.5 cm^2 (d) 221.5 cm^2	1
5		1





(As shown in the above figure) A horse is tied to a peg at one corner of a square shaped grass field of side 15 m by means of a 5 m long rope . Find the area of that part of the field in which the horse can graze.

(a) 18.63 m^2

(b) 19 m^2

(c) 18.625 m^2

(d) 19.625 m^2

6



In the above figure , brooch is made with silver wire in the form of a circle with diameter 35 mm. The wire is also used in making 5 diameters which divide the circle into 10 equal sectors . Find the total length of the silver wire required.

(a) 280 mm

(b) 264.5 mm

(c) 285 mm

(d) 286 mm

7

2





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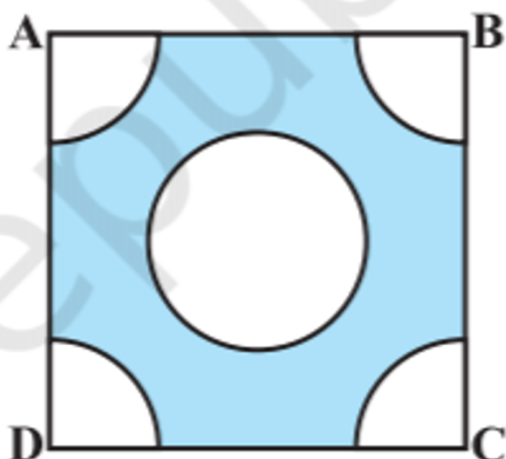
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(As shown in the above image) From each corner of a square of side 4 cm a quadrant of a circle of radius 1 cm is cut and also a circle of diameter 2 cm is cut. Find the area of the remaining portion of the square.

(a) $\frac{58}{7} \text{ cm}^2$

(b) $\frac{68}{3} \text{ cm}^2$

(c) $\frac{68}{5} \text{ cm}^2$

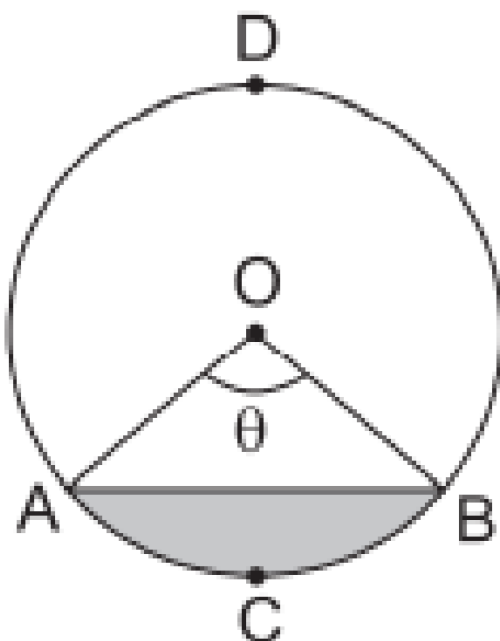
(d) $\frac{68}{7} \text{ cm}^2$

8 An angle subtended by an arc at the centre of a circle is called its central angle. State whether the given statement is true or false.

(a) TRUE

(b) FALSE

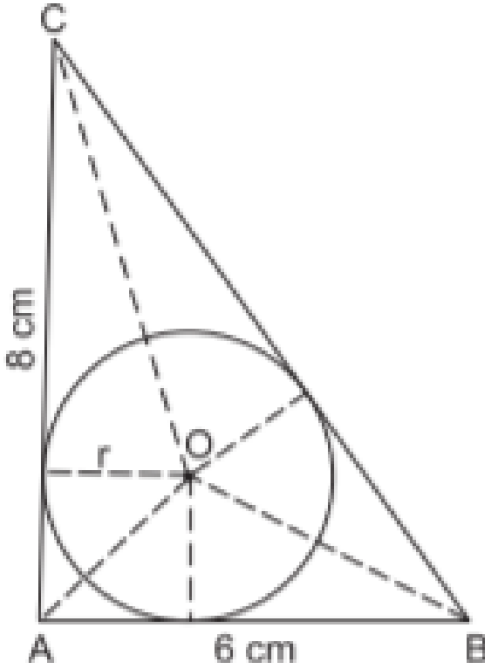
9



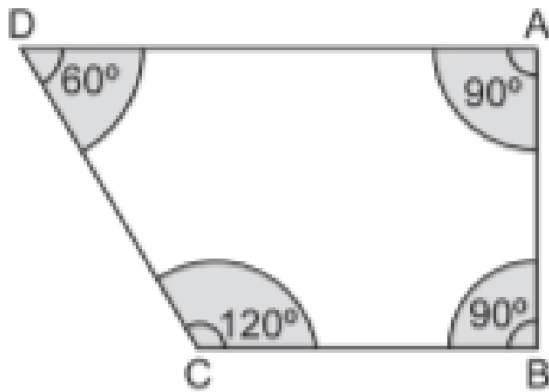
1





	<p>From the above figure, let an arc ACB make an angle θ° at the centre of a circle of radius r. Then, length of minor arc ACB = ____.</p> <p>(a) $\frac{2\pi R\theta}{360}$ (b) $\frac{\pi R\theta}{360}$</p> <p>(c) $\frac{2\pi R\theta}{180}$ (d) None of the above</p>	
10	<p>The perimeter of a sector of a circle of radius 14 cm is 68 cm. Find the area of the sector.</p> <p>(a) 278 cm^2 (b) 270 cm^2</p> <p>(c) 280 cm^2 (d) None of the above</p>	1
11	 <p>From the given figure, $\triangle ABC$ is right-angled at A with $AB = 6 \text{ cm}$ and $AC = 8 \text{ cm}$. A circle with centre O has been inscribed inside the triangle. Find the value of r, the radius of the inscribed circle.</p> <p>(a) 2 cm (b) 3 cm</p> <p>(c) 4 cm (d) 5 cm</p>	2
12		2

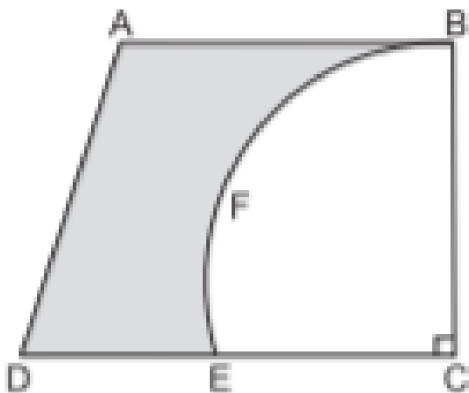




From the above figure, ABCD is a field in the shape of a trapezium, $AD \parallel BC$, $\angle ABC = 90^\circ$ and $\angle ADC = 60^\circ$. Four sectors are formed with centres A, B, C and D. The radius of each sector is 14 m. Find the following: Total area of the four sectors.

- (a) 613 m^2 (b) 614 m^2
(c) 884 m^2 (d) 616 m^2

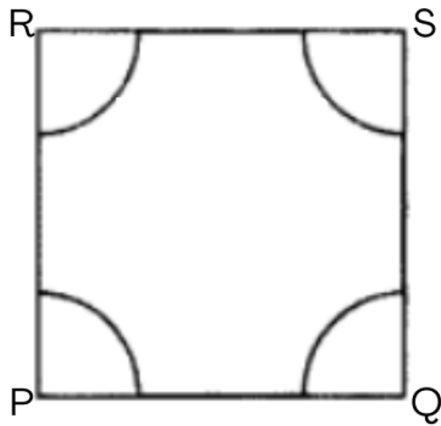
- 13 Two circular pieces of equal radii and maximum area, touching each other are cut out from a rectangular cardboard of dimensions $14\text{cm} \times 7\text{cm}$. Find the area of the remaining cardboard.
(a) 21 cm^2 (b) 12 cm^2
(c) 33 cm^2 (d) None of the above

- 14 

From the above figure, from a thin metallic piece in the shape of a trapezium ABCD in which $AB \parallel CD$ and $\angle BCD = 90^\circ$. A quarter circle BFEC is removed. Given, $AB = BC = 3.5\text{cm}$ and $DE = 2\text{cm}$, calculate the area of remaining (shaded) part of metal sheet.

- (a) 5.16 cm^2 (b) 6.125 cm^2
(c) 5.25 cm^2 (d) None of the above



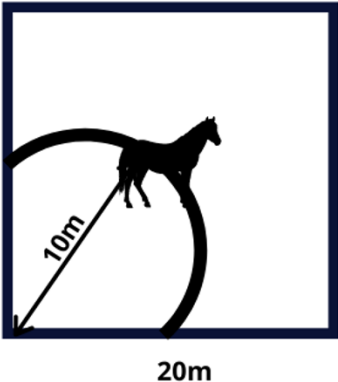


The image above represents a square field of side 40cm, used by 4 horses to graze. Each of them are tied at the points P, Q, R and S with a string of length of 20cm. Using this information, answer the questions given below:

15	Find the area of the field that can be used by the horses to graze. (a) 1257.14 cm^2 (b) 314.285 cm^2 (c) 628.57 cm^2 (d) 942.855 cm^2	1
16	Find the area of the field that will be left ungrazed by the horses. (a) 314.285 cm^2 (b) 342.86 cm^2 (c) 628.57 cm^2 (d) 942.855 cm^2	1
17	What is the area of the entire field? (a) 600 cm^2 (b) 900 cm^2 (c) 1600 cm^2 (d) 1800 cm^2	1
18	What is the area of the field grazed by one horse? (a) 314.285 cm^2 (b) 628.57 cm^2 (c) 942.855 cm^2 (d) 1257.14 cm^2	1





19	What is the area of the field grazed by three horses? (a) 942.855 cm^2 (c) 314.285 cm^2	(b) 628.57 cm^2 (d) 1257.14 cm^2	1
 <p style="text-align: center;">20m</p> <p>A horse is tied to a rope at one corner of a square grass field, of side 20m. The length of the rope with which he is tied is 10m. Using this information, answer the questions below:</p>			5
20	Find the area of that part of the field in which the horse can graze. (a) 78.57 m^2 (c) 98.57 m^2	(b) 88.57 m^2 (d) 108.57 m^2	1
21	Find the are of the part of the field that is left ungrazed by the horse. (a) 321.43 m^2 (c) 621.43 m^2	(b) 231.43 m^2 (d) 341.43 m^2	1
22	Find the total area of the field (a) 400 m^2 (c) 600 m^2	(b) 900 m^2 (d) 500 m^2	1
23			1





		Find the increase in the grazing area if the rope were 15m long instead of 10m (a) 98.21 m^2 (c) 88.21 m^2	(b) 68.21 m^2 (d) 78.21 m^2	
	24	Find the decrease in the grazing area if the rope were 5m long instead of 10m. (a) 58.94 m^2 (c) 78.94 m^2	(b) 68.94 m^2 (d) 98.94 m^2	1



CLASS
9th



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NEPS 93%



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CLASS
10th



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SONAL SIR

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- Trained More then 1 lakh students online and Offline - Bilaspur, Bhilai, Delhi



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Selected in NTPC

P Chaitanya
Selected in IIT-Bombay,
Placed in Micron



Prakhar Jain
Selected in IISc Bangalore,
Placed in Samsung

सीयू के छात्र मनु व मनीष का इंटेल कंपनी में चयन, 21 लाख सालाना पैकेज



बिलासपुर छात्र मनु कश्यप और मनीष कुमार सिंह का चयन इंटेल प्राइवेट लिमिटेड के लिए हुआ है। कंपनी इन छात्रों को सालाना 21 लाख रुपए का पैकेज दे रही है। ये दोनों छात्र सत्र 2017 में सीयू के इलेक्ट्रॉनिक्स एंड कम्युनिकेशन इंजीनियरिंग विभाग से बोटिक की उपाधि प्राप्त की। वर्तमान में ये भारतीय प्रौद्योगिकी संस्थान (आईआईटी) दिल्ली में एमटेक कर रहे हैं। इंटेल कॉर्पोरेशन एक अमेरिकी बहुराष्ट्रीय कंपनी है। सिलिकॉन वैली में सांता क्लारा स्थित इस कंपनी का भारत में मुख्यालय बंगलूरु है।

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MATHEMATICS - 10TH

IMPORTANT MCQ'S – MATHS (10TH GRADE)

SURFACE AREA AND VOLUME

1	2	3	4	5	6	7	8
C	D	C	A	D	C	D	A
9	10	11	12	13	14	15	16
A	C	A	D	A	B	A	B
17	18	19	20	21	22	23	24
C	A	A	A	A	A	A	A
25	26	27	28	29	30	31	32
-	-	-	-	-	-	-	-
33	34	35	36	37	38	39	40
-	-	-	-	-	-	-	-
41	42	43	44	45	46	47	48
-	-	-	-	-	-	-	-