

APOLLO

Circle (Equation of a circle)

FBISE Mathematics Class 12 (HSSC-II)

Domain B: Geometry

13 questions | questions

Original FBISE question crops. National Curriculum 2022-23 topic.

xviii.	If center of the circle $x^2 + y^2 + mx + ny + 2 = 0$ lies at $(4, -8)$, then what is the value of $m + n$?	-8	-4	8	4
--------	---	----	----	---	---

OR	Find the equation of a circle passing through two points $(2, 6), (6, 4)$ with its centre on the line $3x + 2y - 1 = 0$.	4
----	---	---

OR	Find the equation of the circle passing through the points $(4, 0), (0, 5)$ and $(0, 0)$	04
----	--	----

	Find the equation of the circle passing through the points $(0, 4), (5, 0)$ and $(0, 0)$	04
--	--	----

OR	Find center and radius of the circle $2x^2 + 2y^2 - \frac{5}{2}x + \frac{3}{2}y - \frac{7}{4} = 0$	04
----	--	----

OR	Find equation of a circle passing through points A $(1, 2)$, B $(4, 3)$ and C $(2, 5)$	08
----	---	----

Q.3	Let $f(x) = \begin{cases} ax^2 + bx + 2, & x \leq 1 \\ 3x + a, & 1 < x < 3 \\ \frac{2x^2 + b}{x}, & x \geq 3 \end{cases}$ Given that $f(x)$ is continuous at $x = 1$ and at $x = 3$, find the values of a and b .	08	OR	A circle passes through $(0, 0)$, $(2, 0)$, and $(0, 2)$. (a) Find its equation. (b) Find the tangent at $(0, 2)$. (c) Find the normal at $(0, 2)$.	08
-----	---	----	----	---	----

	Find an equation of the circle with centre at $(\sqrt{2}, -3\sqrt{3})$ and radius 4	04
--	---	----

(x)	Determined whether the point $P(-5, 6)$ lies outside, on or inside the circle. $x^2 + y^2 + 4x - 6y - 12 = 0$	04
-----	---	----

OR	Find an equation of circle with ends of a diameter at $(-3,2)$ and $(5,-6)$	04
----	---	----

First Annual 2026 | Section A Q8 | 1 mark

8. The equation $x^2 + y^2 = 9$ represents a:	parabola	circle	hyperbola	straight line
---	----------	--------	-----------	---------------

First Annual 2026 | Section A Q20 | 1 mark

substitution is:							
A circle has equation $x^2 + y^2 = 25$. The point $P(3,4)$ lies:	inside the circle	outside the circle	on the circle	at the center	☐	☐	☐

—2HA-I 26008 (Old)—

FBISE model paper | Section A Q1(xiii) | 1 mark

xiii.	Which one of the following is an equation of a circle with center $(3, -7)$ and goes through a point $(1, 1)$?	$(x + 3)^2 + (y - 7)^2 = 52$	$(x - 3)^2 + (y + 7)^2 = 68$	$(x - 3)^2 + (y + 7)^2 = 32$	$(x + 3)^2 + (y - 7)^2 = 40$
-------	---	------------------------------	------------------------------	------------------------------	------------------------------