

4期生数学サブゼミテスト①

About 15 minutes

NOTICE

- 1 The number in this test are all “Real Number” if there is no assignment.
- 2 x, y are variable, and a, b, c, d, p, q are parameter.
- 3 Program testing time is 15 min. Hurry up as fast as possible.
- 4 If you have any question, raise your hand quietly and let officer know.
- 5 You can use only mechanical pencil or pencil. You can also use ruler.
- 6 You must answer on “answer sheet” differentiated from “question sheet”. If you answer on “question sheet”, you will get 0 score. Also, you must not write letters shut of the question.
- 7 Write your name on the right space.
- 8 You can also get score from the process of answering.

Answer in Japanese.

1. What is the condition that $\frac{a}{b}$ is able to exist?
2. Define “function”.
3. Explain the difference between variable and parameter.
4. Make $\frac{(-a^2)^3(-3a^2)}{a^2}$ clear.
5. Draw graphs of these functions.
 - (1) $y = -\frac{3}{2}x \quad (-2 < x \leq 4)$
 - (2) $y = \frac{2}{x}$
 - (3) $y = 2x + 3$
 - (4) $y = 2x^2$
6. Solve this inequality: $4(2 - x) < 3 - 7(x + 1)$
7. Solve these equations.
 - (1) $2(x - 3) = 2x + 6$
 - (2) $2(x - 3) = 2x - 6$
 - (3) $x^2 - 3x - 5 = 0$