

2022山东高三上学期高中数学期中考试

1. \_\_\_\_\_

已知集合  $A = \{x \mid x > -2\}$ ,  $B = \{x \mid (x + 5)(x - 2) \leq 0\}$ , 则  $A \cap B =$

- A.  $(-2, +\infty)$  B.  $[-2, 2]$  C.  $(-2, 2]$  D.  $[-5, +\infty)$

2. \_\_\_\_\_

设  $\frac{z+i}{z} = i$ , 则  $z$  在复平面内对应的点位于

- A. 第一象限 B. 第二象限 C. 第三象限 D. 第四象限

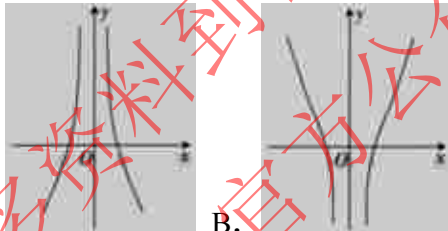
3. \_\_\_\_\_

命题“ $\exists x_0 \in \mathbb{R}, x_0^2 + 2019x_0 + 2020 < 0$ ”的否定为

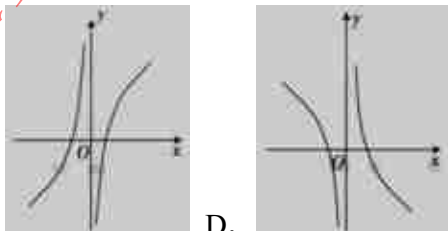
- A.  $\forall x \in \mathbb{R}, x^2 + 2019x + 2020 < 0$  B.  $\forall x \in \mathbb{R}, x^2 + 2019x + 2020 \leq 0$   
 C.  $\forall x \in \mathbb{R}, x^2 + 2019x + 2020 \geq 0$  D.  $\exists x_0 \in \mathbb{R}, x_0^2 + 2019x_0 + 2020 \geq 0$

4. \_\_\_\_\_

函数  $f(x) = x^2 + \frac{\ln|x|}{2x^2}$  的图象大致为



- A.  B. 



- C.  D. 

5. \_\_\_\_\_

若  $\tan(\alpha + \frac{\pi}{3}) = 2\sqrt{3}$ , 则

- A.  $\tan \alpha = \frac{\sqrt{3}}{13}$  B.  $\tan \alpha = \frac{3\sqrt{3}}{7}$  C.  $\tan 2\alpha = \frac{23\sqrt{3}}{7}$  D.  $\tan 2\alpha = \frac{7\sqrt{3}}{23}$