

2020年天津和平区高三一模数学试卷(答案)

一、选择题

1. A

2. C

3. D

4. B

5. B

6. B

7. C

8. D

9. C

二、填空题

10. $\sqrt{2}$

11. -2

12. $4\sqrt{6}\pi$

13. -6或2

14. $2; \frac{2\sqrt{6}+6}{3}$

15. $81; \left(-\infty, -\frac{1}{2}\right) \cup \{1\}$

三、解答题

16. (1) $\frac{3\pi}{4}$.

(2) $1 - \sqrt{10}$.

2 $-\frac{7\sqrt{2}}{10}$.

17. (1) 证明见解析.

(2) $\frac{\pi}{4}$.

(3) $\frac{\sqrt{3}}{2}$.

18. (1) $\frac{x^2}{4} + \frac{y^2}{2} = 1$.

(2) $\sqrt{2}$.

19. (1) $a_n = \frac{1}{2^n}, b_n = n - 1$.

(2) 1 $T_n = n - 1 + \frac{1}{2^n}$.

2 $R_n \in \left[\frac{3}{8}, \frac{1}{2}\right)$.

20. (1) $f(x) = \frac{2x+1}{x}e^x (x \neq 0)$.

(2) 单调递增区间是 $(-\infty, -1)$, $(\frac{1}{2}, +\infty)$,
单调递减区间是 $(-1, 0)$, $(0, \frac{1}{2})$.

(3) $(-1, +\infty)$.