

2021 年重庆市普通高中毕业生参加高职分类考试招生文化素质测试

数学考试说明

150

120

			/	
	10	1-10	5	50
	5	11-15	5	25
	5	16		

3

## 2. 能力要求

1

2

3

4

5

6

## 1. 集合

1

2

3

Venn

2. 函数概念与基本初等函数 I (指数函数、对数函数、幂函数)

1

2

3

$$y=a^x$$

$$y=\log_a x$$

$$a(0 < a < 1)$$

4

$$y = x \quad y = x^2 \quad y = x^3 \quad y = \frac{1}{x} \quad y = x^{\frac{1}{2}}$$

5

6

3. 立体几何初步

1

2

1

2

3

5. 统计

1

2

3

6. 概率

1

2

7. 基本初等函数II (三角函数)

1

2

$$y = \sin x \quad y = \cos x \quad y = \tan x \quad \frac{\pi}{2}$$

$$[0, 2\pi] \quad \frac{\pi}{2}, \frac{3\pi}{2}$$

$$\sin^2 x + \cos^2 x = 1 \quad \frac{\sin x}{\cos x} = \tan x$$

$$y = A \sin(\alpha x + \phi) \quad y = A \sin(\alpha x) \quad A$$

$\alpha$

8. 平面向量

1

2

3

4

5

9. 三角恒等变换

1

2

3

10. 解三角形

1

2

2

$n$

## 12. 不等式

1

2

3

4

$$\frac{a+b}{2} \geq \sqrt{ab} \quad a, b \geq 0$$

## 13. 常用逻辑用语

1

$p \quad q$

2

3



14. 圆锥曲线与方程

15. 空间向量与立体几何

1

2

16. 导数及其应用

1

2

$$(C) \varphi 0 \quad C \quad (x^n) \varphi nx^{n-1} \quad (n \in \mathbf{N})$$

$$\frac{1}{x} \varphi -\frac{1}{x^2} \quad \sqrt{x} \varphi \frac{1}{2\sqrt{x}}$$

$$(\sin x)^\varphi = \cos x \quad (\cos x)^\varphi = \sin x$$

$$(e^x)^\varphi = e^x \quad (a^x)^\varphi = a^x \ln a \quad a (0 < a < 1)$$

$$(\ln x)^\varphi = \frac{1}{x} \quad (\log_a x)^\varphi = \frac{1}{x \ln a} \quad a (0 < a < 1)$$

$$f(x) \cdot g(x)^\varphi = f(\varphi x) \cdot g(\varphi x)$$

$$f(x)g(x)^\varphi = f(\varphi x)g(x) = f(x)g(\varphi x)$$

$$\frac{f(x)^\varphi}{g(x)} = \frac{f(\varphi x)g(x)}{g^2(x)} = \frac{f(x)g(\varphi x)}{g^2(x)} \quad (g(x) \neq 0)$$

$$f(ax + b)$$

3

4

17. 复数

1

2

18. 计数原理

1

2

3

19. 概率与统计

1

$n$

2

$$x_1, y_1 \quad x_2, y_2 \quad \dots \quad x_n, y_n \quad \hat{y} = \hat{b}x + \hat{a}$$

$$\hat{b} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^n (x_i - \bar{x})^2} = \frac{\sum_{i=1}^n x_i y_i - n\bar{x}\bar{y}}{\sum_{i=1}^n x_i^2 - n\bar{x}^2},$$

$$\hat{a} = \bar{y} - \hat{b}\bar{x},$$

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i \quad \bar{y} = \frac{1}{n} \sum_{i=1}^n y_i$$

$$\hat{b} = \frac{\Delta y}{\Delta x}$$

$$\hat{y} = \hat{b}x + \hat{a} \quad x = x_0 \quad y = \hat{y}_0$$