

高一高数第一学期考试复习

1. Simplify  $\sqrt[5]{(2-x)^5}$   
化简  $\sqrt[5]{(2-x)^5}$

$2-x$

2. Simplify  $\sqrt[4]{(x-2)^4}, (x < 2)$   
化简  $\sqrt[4]{(x-2)^4}, (x < 2)$

$2-x$

3. Simplify  $\sqrt[4]{(m-2)^4} + \sqrt[6]{(m-3)^6}, (2 \leq x \leq 3)$   
化简  $\sqrt[4]{(m-2)^4} + \sqrt[6]{(m-3)^6}, (2 \leq x \leq 3)$

1

4. Simplify  $(3\sqrt[5]{ab^2})^3$   
化简  $(3\sqrt[5]{ab^2})^3$

$27b\sqrt[5]{a^3b}$

高一高数第一学期考试复习

5. Simplify  $\sqrt[3]{2\sqrt{7}}$   
化简  $\sqrt[3]{2\sqrt{7}}$

$$\sqrt[6]{28}$$

6. Simplify  $\sqrt[3]{\frac{b^4}{54a^7}}$   
化简  $\sqrt[3]{\frac{b^4}{54a^7}}$

$$\frac{b\sqrt[3]{4a^2b}}{6a^3}$$

7. Simplify  $\left(7b\sqrt[3]{a} - \sqrt[6]{\frac{b^2x}{9}}\right) - \left(b^2\sqrt[3]{\frac{27a}{b^3}} - 5\sqrt{a^2x}\right)$   
化简  $\left(7b\sqrt[3]{a} - \sqrt[6]{\frac{b^2x}{9}}\right) - \left(b^2\sqrt[3]{\frac{27a}{b^3}} - 5\sqrt{a^2x}\right)$

$$4b\sqrt[3]{a} + (5a - 3b)\sqrt{x}$$

8. Simplify  $\frac{1}{\sqrt{2+\sqrt{5}-\sqrt{7}}}$   
化简  $\frac{1}{\sqrt{2+\sqrt{5}-\sqrt{7}}}$

$$\frac{2\sqrt{5} + 5\sqrt{2} + \sqrt{70}}{20}$$

高一高数第一学期考试复习

9. Simplify  $\frac{-3\sqrt[3]{a^2}\sqrt[4]{b^3}c^2}{9\sqrt[3]{a}\sqrt{b}\sqrt{c^3}}$

化简  $\frac{-3\sqrt[3]{a^2}\sqrt[4]{b^3}c^2}{9\sqrt[3]{a}\sqrt{b}\sqrt{c^3}}$

$$-\frac{1}{3}\sqrt[3]{a^4}\sqrt{b}\sqrt{c}$$

10. Simplify  $n\sqrt{\frac{3}{x^{2n+1}}}$

化简  $n\sqrt{\frac{3}{x^{2n+1}}}$



$$\frac{1}{x^3}\sqrt{3x^{n-1}}$$

11. Simplify  $1 \div (\sqrt[4]{x} - 2)$

化简  $1 \div (\sqrt[4]{x} - 2)$

$$\frac{\sqrt[4]{x^3} + 4\sqrt[4]{x} + 2\sqrt{x} + 8}{x - 16}$$

高一高数第一学期考试复习

12. Simplify  $\frac{1}{\sqrt[3]{3}+1}$

化简  $\frac{1}{\sqrt[3]{3}+1}$

$$\frac{\sqrt[3]{9} + 1 - 3\sqrt{3}}{4}$$

13. Calculate  $\sqrt{61 + 24\sqrt{5}}$

计算  $\sqrt{61 + 24\sqrt{5}}$

SJUEC

$$3\sqrt{5} - 4$$

14. Calculate  $\sqrt{2 + \sqrt{3}}$

计算  $\sqrt{2 + \sqrt{3}}$

$$\frac{\sqrt{6} + \sqrt{2}}{2}$$

15. Calculate  $\sqrt{\sqrt{18} + \sqrt{10}}$

计算  $\sqrt{\sqrt{18} + \sqrt{10}}$

$$\frac{\sqrt[4]{200} + \sqrt[4]{8}}{2}$$

16. Solve the equation  $\sqrt{2x^2 + 7x} - 2 = x$

计算  $\sqrt{2x^2 + 7x} - 2 = x$



$$x = 1$$

17. Solve the equation  $\sqrt{2x - 4} - \sqrt{x + 5} = 1$

解方程式  $\sqrt{2x - 4} - \sqrt{x + 5} = 1$

$$x = 20$$