150

10 5 50

1.

A B C D

2.

A B C D

3.

A .

B.

C .

D .

4.

A B C D

5.

A.

B.

C.

D.

6.

A.

B.

C.

D.

7.

A

B

C

D

( )

A

B

C

D

9.

A. B. C. D.

10.

A. B. C. D.

40

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(ch n) " (zh u) "

" "

" " " ? ?
?"

" " " "

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" "

" ?"
" "

" "

( )

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16. 5

17.
5

18. 5

60

400

150

1 $A \quad x \quad \mathrm{Z}|x^2 \quad 4 \quad B \quad x|x \quad 1 \quad A \quad B=$

A $1,2$ B $0,1,2$

C $2, \quad 1,0,1,2$ D 0

2 $z \quad 1 \quad i \quad \bar{z}$

A. $1 \quad \mathrm{i}$ B $1 \quad \mathrm{i}$ C $1 \quad \mathrm{i}$ D i

3 $a_n \quad a_1 \quad 4 \quad a_5 \quad 12 \quad a_6$

A 13 B 14 C 15 D 16

$\alpha \quad (4 \quad 3) \quad \sin(\alpha \quad \frac{\pi}{2}) \quad (\quad)$

A. $\frac{4}{5}$ B. $\frac{4}{5}$ C. $\frac{3}{5}$ D. $\frac{3}{5}$

5 $\mathrm{V}ABC \quad A,B,C \quad a,b,c \quad \sin A:\sin B:\sin C \quad 2:3:4 \quad \cos C$

A $\frac{2}{3}$ B $\frac{1}{3}$ C $\frac{1}{4}$ D $\frac{1}{4}$

6 $x^2 \quad y^2 \quad 2x \quad 4y \quad 4 \quad 0$

A $1,2 \ ,3$ B $1,2 \ ,3$ C $1, \ 2 \ ,2$ D $1, \ 2 \ ,3$

7 $f \quad x \quad \mathrm{e}^x \ln x \quad f\ (x)$

A $\frac{\mathrm{e}^x}{x}$ B $\mathrm{e}^x \quad \frac{1}{x}$

C $\frac{\mathrm{e}^x \quad x\ln x \quad 1}{x}$ D $\frac{1}{x} \quad \ln x$

8 $3x \quad \frac{1}{x} \quad {}^n \quad n \quad \mathrm{N}^*$ 16 n

A 2 B. 3 C 4 D 5

9 $ABCD \quad A_1B_1C_1D_1 \quad E,F,G \quad AD,BC,BB_1$

C_1E,FG

A $\frac{\sqrt{2}}{6}$ B $\frac{1}{3}$ C $\frac{1}{6}$ D $\frac{\sqrt{2}}{3}$

10 C y^2 $8x$ F O M C $|MF|$ 4 $|OM|$

=

A $2\sqrt{5}$ B $\sqrt{33}$ C $4\sqrt{2}$ D 4

11 F_1 F_2 $C:\frac{y^2}{a^2}$ $\frac{x^2}{b^2}$ 1 a $0, b$ 0 F_1 x

A B AF_2B C

A $\frac{\sqrt{7}}{2}$ B $\frac{\sqrt{21}}{3}$ C $\sqrt{5}$ D $\sqrt{3}$

12 f x $a\ln x$ x^2 x 1 f x

A $1,$ B $0,1$ C $1,3$ D $\frac{1}{2},1$

13 $\vec{a}$ $\log_2 3, \sin\frac{4}{3}$ $,\vec{b}$ $\log_3 8, m$, $\vec{a}$ $\vec{b}$ m

A $2\sqrt{3}$ B $\sqrt{3}$ C $2\sqrt{3}$ D $3\sqrt{2}$

14 f x ae^x $\ln x$ $1,2$ a

A e^2 B e C e ^{1} D e ^{2}

15. $f(x)$ cos $(\omega x$ $\frac{\pi}{3})$ $1(\omega$ $0)$ π $f(x)$ $[0$ $\frac{\pi}{2}]$

( )

A. $\frac{1}{2}$ B. 1 C. $\frac{3}{2}$ D. 2

16

A X N $3,$ ^{2} P X 4 0.7 P 3 X 4 0.2

B 10 11 11 12 13 14 16 18 20 22 60 14

C $|r|$ 1

D x y $\hat{y}$ $0.3x$ m

$m, 2.8$ m 4

17 a 1 b 0 a b 3 $\frac{2}{a\ \ 1}$ $\frac{1}{b}$

A $\frac{3\ \ 2\sqrt{2}}{4}$ B $\frac{3\ \ 2\sqrt{2}}{2}$ C $\frac{3\ \ 4\sqrt{2}}{2}$ D $\frac{3\ \ 4\sqrt{2}}{4}$

18 $P\quad ABC$ PA ABC $BAC\quad 60$ $AB\quad 2$ $AC\quad 1$ $PA\quad 3$

$P\quad ABC$

A $\frac{13}{2}$　B 13　C 52　D $\frac{13\sqrt{13}}{6}$

19 $x^2\quad y^2\quad 1$ $a,2$ 3 a

A $2,4$　B $0,4$

C $2\sqrt{3},2\sqrt{3}$　D $2\sqrt{3},0\quad 0,2\sqrt{3}$

20 $C:\frac{x^2}{4}\quad\frac{y^2}{16}\quad 1$ $A\ B$ l C M

N MA k_1 NB k_2 NA k_3 $k_1\quad 2k_2$

k_1k_3

B $\frac{1}{2}$　C 8　D 8

)

$n\quad \mathbf{N}^*$ $2a_{n\ 1}\quad a_n\quad a_{n\ 2}$.( )

$E(X)\quad 2$ $E(2X)\quad 4$.( )

$f\ (x)\quad \mathrm{e}^x(x\quad 1)$ ( )

b ( )

$1\quad 0$ 2 .( )

ì $\bar{x}\quad \bar{y}$.( )

13. $y \quad 2x \quad 1$ $\frac{1}{2},0)$ ( )

14 $y \quad 3\sin \quad 2x \quad \frac{}{3}$ $\frac{}{6}$ $y \quad 3\sin 2x$.( )

15 $a_1 \quad a_2 \quad a_3 \quad a_4 \quad \ldots$ $a_1 \quad a_3 \quad a_5 \quad \ldots$.( )

16 $a \quad b$ $ac^2 \quad bc^2$.( )

17 $y^2 \quad 2px$ $2p$. ( )

18 $X \quad N \quad , \quad ^2$ $P \quad X$ $\frac{1}{2}$.( )

19 ABC $\sin A \quad \sin B$

1~10.B C D A D A B D C A

④ ⑤

④

16. 2
2 2
2
17. 3
3
2
18. 3
3
2

