

86ÖLÖ 20242026 α Y¹ ~ = Ñ 7

Ä 7N©- 5F ' Ö 2024BFFWZ00068Å

101	7 œ z	4
	1.7&	4
	2.N93\$	4
	3.7&P	5
	4.7&c	5
	5.7&BÓ	6
	6.CÑ	6
	7.A7#	6
	8.07&	6
	9.7&AÁù	6
	10.3&	7
	11.63+è	7
	12.NB\$	8
	13.7&FIVg	8
114	Á 7 êN«.	9
	Á 7 êN«. }Lt>~	9
	L. 1 CÑ (CC&&)	22
	L. 2 CÑ & (C&P)	23
	L. 3 CÑ (50&P)	24
	L. 4 CÑ (C&P)	25
	L. 5 CÑ@COSA	26
	L. 6 CÑÁ	26
	L. 7 CÑ	28
	7&N.0&	29
	1. k	30
	2. 7&	34
	3. 7&	36
	4. 7&	39
	5. 07	41
	6. A7	41
	7. Ê	43
	8. 8<	43
	9. 4&“	44
	10. 0&	45
	0&7&S+7&E	46
191	A6 7 Í# 5, 8A6`# Á 9 x' IÁ	50
	A6 7 Í# }Lt>~	50
	1. A7#	67
	2. A7b	67
	3. A70;	68
11	8 <'In ú I?	71
	1\ 08² 8AP	71
114	5 ê?±"r	92

1x	Á 7 · & I ?	.....	106
	Á 7 · & Ä v Ñ · & Á	.....	107
	Á& Á&	.....	133
	Á& Á&	.....	137

101 7 œ z
2024-2026

1.

- 1.1 N@0 Ö 860VL 2024-2026 4N
- 1.2 N@F0 Ö /
- 1.3 @ fFÖ /
- 1.4 7Ö 860WV69E
- 1.5 NÖ 860WV69E
- 1.6 CÄ CÄ
- 1.7 N@CÖ 100%
- 1.8 CÄ fm

2.

- 2.1 7N@0 Ö 860VL 2024-2026 4N
- 2.2 7N@FÖ 2024BFFWZ00068
- 2.3 7BÖ VN@60Z7a
- 2.4 7N@fFÖ 2024BFFWZ00068
- 2.5 7N@ f186Ö
- 2.6 7N@Q 860VL 2024-2026 4N B&
- 2.7 7N@NAÑÖ 2024 1 8#
- 2.8 =Ö 81@Ö 2 8AÑ 730 ¶
- 2.9 793Ö N@B7041A7Ä

85A7A7N-5105558-4N

f\$N&

- 2.10 N@fÖ 0f g =N
- 2.11 81Ö 157.5 7s

2.12 Ö /

3.

3.1 ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~

3.1.1 ~~Ä~~ ~~Ö~~ /Ä

3.1.2 ~~Ä~~ ~~Ö~~ /Ä

3.1.3 ~~N~~ ~~C~~ ~~O~~ ~~S~~ ~~Ö~~ /Ä

3.1.4 ~~N~~ ~~C~~ ~~O~~ ~~S~~ ~~Ö~~ /Ä

3.1.5 ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

~~Ä~~ ~~Ö~~

Ä 1 ~~Ö~~ ~~Ä~~ 6 ~~Ä~~ ~~Ö~~ ~~Ä~~ 10 6, x

Ä 2 ~~Ö~~ ~~Ä~~ 12 ~~Ä~~ ~~Ö~~ ~~Ä~~ 15 6, x

Ä 3 ~~Ö~~ ~~Ä~~ 18 ~~Ä~~ ~~Ö~~ ~~Ä~~ 20 6, x

Ä 4 ~~Ö~~ ~~Ä~~ 24 ~~Ä~~ ~~Ö~~ ~~Ä~~ 25 6, Ä

3.1.6 ~~∇~~ ~~N~~ ~~Ö~~ = ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

3.2 ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

1.4.3 ~~N~~ ~~Ö~~

1.4.4 ~~N~~ ~~Ö~~

Ä

3.3 ~~Ö~~ /

4.

4.1 9& LÖ 2024 x 1 8 13 00:00 8# 2024 x 2 8 2 10:00Ä

4.2 9Ö

Ä 1 ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

Ä 2 ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

86 ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

10+e

€ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

4.1 ~~h~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

9& ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

Ä 3 ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~ ~~Ö~~ ~~Ä~~

9Ö 00-17Ö 3087

3+5FM 15Ä

9.3 *62A53+53+1ze

11.1 ¼ 11.2Ä

10.

~~76081517160~~

15F0E3Ä

11.

11.1 7ê

7 Æ 8600WLE6N9LE

` pÖ 860TP 596 '

Fp 5FÖ 230088

6, 3+ Æ)»

+e BÖ 0551-65771081

11.2 7*6j

7*600LN01N9LE

` p860% 2588 WFD

Fp 5FÖ 230000

6, 3+ Æ

+e BÖ 0551-66223879Ä 66223831

11.3 +eE3+5

+eE3+5=0 00L0eE3+5

+eE3+5+eBÖ 4009980000

11.4 +eE3+5

+eE3+5=0 Ö 8600eE3+5

+eE3+5+eBÖ 0551-12345

11.5 p00-1N6GL

p00-1N6GL00p00-1N6p

p860%# 2588 '
+e BÖ 0551-66223530Ä 0551-66223546

12.

78* 67955HJK+5E
155ÄN5EPDES
+8CÄ

13.

710 : 1 7ä

g=Ö	B6ÖtÄ
CVÖ	185751462404
OgKÖ	JK8Öc
g=Ö	B6ÖtÄ
CVÖ	1023701021001095993248748
OgKÖ	JK8Öc

h	h=0	5FG
1.10.2	ÄÄN 7J*NE	Ö / Ö /
2.1Ä 7Å	7& É	/
2.2.1	7& %\$ 7&	Ö 2024 1 8 23 17 & 30 6} ÖÖ3+5X
2.2.2	7&\$ *?	FECN+5*
2.3.1	7& *?	FECN+5*
3.2.1	ÖME E	Ä 1ÄÖÖ 08ÄÖ 7CÄNE Ä 2ÄÖ ÖE+X ÖEJ Ä 3ÖÖ)9'9Ä Ä 4Ä #86Ö3Ö2Ä ÖÖN - NÖNÍ N5ÖÄ
3.2.3	Ö	Ö Ö. Ö)Ö Ö
3.2.4	ÖE	7

h	h=0	5FG
		<p>8628600]51Åz</p> <p>2-86000]ÅHCE</p> <p>006Ä</p> <p>Ä 4XF2+X5ÅA60</p> <p>=F2+X</p> <p>Ä 50</p> <p>7(C0</p> <p>7000M</p> <p>7A0)7N00N\</p> <p>3.4.4 N0</p> <p>6&700]NB</p> <p>0A0F0FÄ</p> <p>8ÅA0E</p> <p>7000M</p> <p>0A007#</p> <p>CS+F000A0F0F</p> <p>ACS+00N0470</p> <p>ÅA00CF-5F004&</p> <p>07-CN0A0000AF-</p> <p>5000AC0*6C0i+KaÅ</p> <p>0</p> <p>Ä 6ÅA0</p> <p>7000M</p> <p>N00BFD000I</p> <p>Ä</p> <p>8-00F'(<</p>

j

NÖ

h	h=0	5FG
		6x
		c.]7IF94Å5+K
		5 Å
		d.]7IF94Å5
		Å

h	h=0	5FG
		Ä 5

h	h=0	5FG
		<p> 06*126.A000 FJ20 2020Ó 84 Å Ä 4ÄÄÄÄ FCE ñ1ÑEÄ- Ä 504*FP87ÄÄ 04*FP8+ÄÄ Ò 2021Ó 40Ä- Ä 604*18ÄV8Ä181Ñ *604*18+ÄÄ FÄ 2021Ó 2ÄÄÄ *18ÄÄÄ(ÄÄ(ÄÄ> 1Ä(ÄDF)=08Ä+ÄÄ 0 7 ZÄÄ(ÄÄ- 89-(ÄÄÄÄ- </p>
<p>10.4</p>	<p> A0Ä% ÄÄÄ </p>	<p> Ä 1ÄÄÄÄÄ+560%ÄÄÄ Ä7-Ä15ÄÄÄ ÄÄÄ+51ÄÄÄÄ 7-*Ä7-Ä Ä 2ÄÄÄÄÄ+58ÄÄ- Ä05:Ä7ÄÄÄ 15.6ÄÄÄ ÄÄÄÄÄÄÄ% ÄÄÄÄÄÄÄÄ ÄÄÄÄ </p>
<p>10.5</p>	<p> ÄÄ ÄÄ + </p>	<p> Ä 1ÄÄ ÄÄÄÄ-ÄÄÄ *6ÄÄ*6ÄÄÄÄÄ Ä 2ÄÄÄÄÄÄÄÄÄÄÄ </p>

h	h=0	5FG
		<p>9ÄFÖ)FKEPÄfn ÄÖGÖ-1Ñ *6B3EAE 5QB B3 ÈZPAE CÖ-1Ñ6G*6Ä]7Z)(ÖÖ-1Ñ6G #7E4*6E-0+(CS+Ö Ä 1]AÈÖÖ-1Ñ6G Fj%Cl7Ea7fCÈ ÑCÖE</p>
10.6	]7Z)(ÖS+	<p>Ä 2]AÈÖÖ 8È]7Z7-ÖH1ÖÖ È9]7CÖÖ-1Ñ *6E Ä 3</p>

h	h=0	5FG
		<p>Ä 4Å $\frac{1}{2}(\frac{1}{2} + \frac{1}{2})$</p> <p>$\frac{1}{2}$ 9'</p>

h	h=0	5FG
		<p>.yDF)=08B+ÄÄ Ä 5Å GÄ#18ÄV8#181Ñ *60#0#18+GE FÄÖ 2021Ó 2 #4# %18AÄ@ (ÉZ (ÉF 1@.yDF)=08B+ÄÄ Ä 6Å ÇÉ1A7#1A& ä</p>
10.11	7ä á	<p>Ä 1Ä#7& 0Ä71Ñ6# Ñ#4# PÄ7N@y6N@Ñ#)Ä1F66#Ä VI7#7CÄ Ä 2Ä#15F+@3+5*)ÄÄÑ-5j Ä2#7#> 7#*6#F4# Ä4CSÄ Ä 3Ä#]=08È ä</p> <p style="text-align: right;">Ä j</p>
10.12	7*6=Ñi	<p>Ä 17Ä6=Ñ#N7FJNA7 *6j47*6=Ñ#V# Ä 7*6=Ñ#JÄÑ# & 1)Ä2|C7ö =Cä 4000 9'— 4000 976 Ä</p> <p style="text-align: right;">80#1 Ä</p>

h	h=0	5FG
		Ä 2: A(1) A(2) A(3) A(4) A(5) A(6) A(7) A(8) A(9) A(10) A(11) A(12) A(13) A(14) A(15) A(16) A(17) A(18) A(19) A(20) A(21) A(22) A(23) A(24) A(25) A(26) A(27) A(28) A(29) A(30) A(31) A(32) A(33) A(34) A(35) A(36) A(37) A(38) A(39) A(40) A(41) A(42) A(43) A(44) A(45) A(46) A(47) A(48) A(49) A(50) A(51) A(52) A(53) A(54) A(55) A(56) A(57) A(58) A(59) A(60) A(61) A(62) A(63) A(64) A(65) A(66) A(67) A(68) A(69) A(70) A(71) A(72) A(73) A(74) A(75) A(76) A(77) A(78) A(79) A(80) A(81) A(82) A(83) A(84) A(85) A(86) A(87) A(88) A(89) A(90) A(91) A(92) A(93) A(94) A(95) A(96) A(97) A(98) A(99) A(100)

1

1. 7 *6 = ÑCi fCi 7 ö

7H NÍ Ä 7 s Å	CW ^(TM) 7	= Ñ 7	0; í / 0; k ⁻ 5
100 ;	1.5%	1.5%	1.0%
100-500	1.1%	0.8%	0.7%
500-1000	0.8%	0.45%	0.55%
1000-5000	0.5%	0.25%	0.35%
5000-10000	0.25%	0.1%	0.2%
10000-100000	0.05%	0.05%	0.05%
100000 :	0.01%	0.01%	0.01%

Ö 7 *6 = Ñ fCi 9 NÍ Ê)-3_F # AÑ1Ç È] 7H NÍ [\ Ä » ² Ö = Ñ 7 *6 JÑ

] 7HNÍ j 6000 7 s È § f f H NÍ j : > Ä 7 *6 = ÑCi fCi 7 ö Å-(Ä 72« [fCi 7

ö *80% È AÑ1Ç 7 *6 = ÑCi f H NÍ ² ; Ö

100 7 s h 1.5 Á h 80% Ù 1.2 7 s

Ä 500 É 100 Á 7 s h 0.8 Á h 80% Ù 2.56 7 s

Ä 1000 É 500 Á 7 s h 0.45 Á h 80% Ù 1.8 7 s

Ä 5000 É 1000 Á 7 s h 0.25 Á h 80% Ù 8 7 s

Ä 6000 É 5000 Á 7 s h 0.1 Á h 80% Ù 0.8 7 s

8 AÑ fCi Ù 1.2 Ç 2.56 Ç 1.8 Ç 8 Ç 0.8 Ù 14.36 (7 s)

1 ()

CtCXAñ – ú ! ?±"r
§ 7 9 x, ' : U J — ' — / » J ... } # ê Añ – Ä

Ö Ä 7 ê Ä Ë : U J — ' — / J Añ 1 5 Ä

2 ()

7€ 5P
7A

6

1.:F ENj :

7A 6

Ä 18&

Ä 2B)Ä 68<bA

Ä 3 /

7A 6

Ä 18&

Ä 2B)Ä 68<b

6A

Ä 3 /

3

()

@'±"r

?ñ 7 œ z Ä

Ö Ä 7 ê M0 ÄAñ > € É È+aAô 7 ^ JFJE÷+e € = Ñ3+5 B Ä

4

ê ^	Ct l?±"r
N©- COCS ê	1.N©- COCS ê Ct l ' &?ñ 7 œ z È D õN« _ \ ... } ê ^ Ä 2.N©- COCS ê J5 §f?±"r?ñ 7 œ z Ä

Ö

√N©COCSÄ

0ZÄ

7N0

h 5F'	/93 16	i6

1.

1.1

1.1.1 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$

-F7Ä

1.1.2 $\frac{1}{7} \frac{1}{7} \frac{1}{7}$ 1.1.3 $7 * \frac{1}{7} \frac{1}{7} \frac{1}{7}$ 1.1.4 $7 \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ 1.1.5 $* \frac{1}{7} \frac{1}{7} \frac{1}{7}$

1.2

1.2.1 $\frac{1}{7} \frac{1}{7} \frac{1}{7}$ 1.2.2 $* \frac{1}{7} \frac{1}{7} \frac{1}{7}$ 1.2.3 $\frac{1}{7} \frac{1}{7} \frac{1}{7}$

1.3

1.3.1 $793 \frac{1}{7} \frac{1}{7} \frac{1}{7}$ 1.3.2 $= \frac{1}{7} \frac{1}{7} \frac{1}{7}$

1.4

1.4.1 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ Ä 1 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ Ä 2 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ Ä 3 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ Ä 4 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ Ä 5 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$ Ä 6 $\frac{1}{7} \frac{1}{7} \frac{1}{7} \frac{1}{7}$

00A1\

3.5 A

1.4.2 AN)B78IV8\1\

1.4.1

NAN)EAY@

A 184VTC6,AE(¥

45*a]7NQA7FVCS+×

A 28A10C+aTZ9PC

CCX40E8BCCCXC6+a=@

6[D48C

CCX8CCX

A 308fe8-)FB97A×

A 40846[9TK(Ä

†+a68(¥COS)684CE50M7&

68(¥PMS,4D

A 51N58(¥G,4PQE

JCOFV48CS+Ä

1.4.3 70684@

A =Q

A 17A9)0EŁ

JÄ

A 27K+D7-7W×

A 37M COSpe

A 47MÑÑB+×

A 57M&

A 67M*6j

A 77M7*6ZE

A 87M7*6ÑB+×

A 97M61E7WHe

Z+F65E+×

A 10E57CD45E93E

1N6G 45E(ESÄ

A 110F9MÄZI}F-\$

3 9PCFbFÄ

FUGÄÖVCYKÄSÄE(

9F #5EÄ45G

E+XIE(C%0E9E

Ä 12ÄSHEE-CCCA

Ä 13ÄS10EÄWa4ÖE

Ä 14ÄEÄCCOSEÄZ

A}

F-B 3ÄC6E

Ä 15Ä

Ä 16ÄNÄE

1.4.4 76684E8E-8YXÖ.

Ä 1Ä-1XÄB+5Ä

<http://www.gsxt.gov.cn/>

Gf#1E×.

Ä XÄ +X}

54Ä

<http://www.creditchina.gov.cn/>

E×.

Ä XÄ +X}

54Ä

<http://www.creditchina.gov.cn/>

OEÄE×.

Ä 4ÄÄÄÄÄ

1.5

76EÄE+8*6Ä

1.6

5ÄÄÄÄÄ

ÄÄÄS+Ä

1.7

7ÄÄÄÄÄ

1.8

ÞAŠNAHŠÄ

1.9

1.9.1 ÅNŠÄNŠÄNŠÄ

ŠÄ

7DNQŠZ9BŠ

DŠÄ

7eQZFGÄDNQÄ

1.9.2 ÅDŠOŠ*6Ä

1.9.3 VÄŠCOSNŠÄŠÄ

Ä

1.9.4 DNŠÄŠÄ

5FÄŠÄŠÄŠÄ

1.9.5 ÅVŠÄŠÄŠÄ

ÄŠÄ

7Ä=08ŠjaŠ

+DNŠÄŠÄ

1.10

1.10.1 ÅNŠÄNŠÄNŠÄ

ÄNŠÄŠÄNÄ

1.10.2 ÅVÄNŠÄNŠÄ

7ÄŠÄ

1.10.3 ÅNŠÄNŠÄNŠÄ

2.2 h

Ä

97&

Ä%ŠÄŠÄ

6Ä

1.11

1.11.1 ÅNŠÄNŠÄNŠÄ

1V8ÄŠÄ

Ä 1655931F65F28CF0

0E7A0

261905Et

7-Ä57BQF2Ä-4Ä

1.11.2]7e@E]7N@e@]e

Ä65NCA7ECS65a65N@VCS+Ä

1.12

Ä 2 ~~Å~~ ~~N~~ ~~«~~

Ä 3 ~~Å~~ ~~7~~ ~~#~~

Ä 4 ~~8~~ ~~9~~

Ä 5 ~~9~~ ~~0~~

Ä 6 ~~7~~ ~~8~~

Ä 7 ~~Å~~ ~~«~~ ~~»~~ ~~9~~

Ä 1 \

1.10 ~~Ä~~

2.2 ~~Ä~~

2.4

3.3.2 707070

CS+Ä

3.3.3 *) (0970) Ä

7070707070

9070707070

7070707070

A 70 70 70

3.4

3.4.1 7070707070

7070 7070 7070 7070 7070 7070

7070 7070 7070 7070

7070707070

7070 7070707070 +a(7070707070<

.)70

707070707070

7070 7070 3.3.3 70707070

-(70

3.4.2 70707070 3.4.1 70707070

7070

3.4.3 70707070 707070 7070> 5

7070707070707070 5μ

7070707070707070

+7070707070

70707070707070

707070

3.4.4 707070707070

Ä 1707070

Ä 2]ÅFJ6+a=7A.08EM0

8&7ë È-9740H

Ä 3ÅN,}EF0FÅÄ

3.5

3.5.1 Åë Ä— ÅN,}EÑE

11 ÅË

3.5.2 ÅN,}B3ÅÑE68f

é(Ä

3.5.3 70BÑE7A

Ñ5ÅK00)ÅIF9Ñë

Ñ#

7IF9CÑC6Ñ

CÑ--1Ñ6Ä

3.6

3.6.1 ÅN,}ÅEÑEÇF9ÅE!

Å6ÜÄ

3.6.2 ÅÇF9BÇF9ÅEÇF9ÅE

63Å7AÜ7F9ÅEÇF9ÅE

ÅEÇF9ÅE

3.6.3 ÅEZFTZ:ÅÑEZD

ÅEZFTZ:ÅF9Å

3.7

3.7.1 ÅÜÅEÇF9ÅE

N¥ÅGÅ%ÇF9ÅEÇF9ÅE

*7EÇF9ÅE

3.7.2 ÅÑEÇF9ÅE

93\$ÇF9ÅE

4.2

4.2.1 ÅÖIÄZKÖ

XÖ3+5:PÄ

4.2.2 ÅEBÄN,ÅMI

Å&aÅÄF

AÄ&§ÖÄ

4.2.3 ÄN,Å)ÖEÄBÄ&FÖFÄ

4.2.4 ÅZKÖRÄEÖ

Å55ÖVZÖ

KÄ9

'-ÖÄZKÄ

EÖ3+5Ä

4.2.5 ÄN,Å)ÄFBÄDIE65Z

F17ÄE-ÄY

'-7&

pÖ3+5

FBÄWÄpÖ3+5FBÖ

ÄFBÄMÄ

4.2.6 ÄM\

5.2 ÖE3+5Ö

A,Ä7-ÄN,Å)

ÄEÄEÄÄZK,Ä7

)FBÄMÄ507Ä,Ö3+5

AÄ*ÄMÄ,1=08EÖ3+565Ä

4.3

4.3.1 XÖI7ÄZKÖ

FBÄMÄMÖ3+5-Ä>

ÖMÄZKÖÄ

7ÄZKÖ

41\

3 Ä

4 EÄFBÖ

4.3.2 ÄEÄBÖ

Ä

Ä

ÄÄÄÄ*6Ä,1ÄM

Ä 7c) 10Ä

5.

5.1

$$7\sqrt{2} \sin\left(\frac{\pi}{6} + 507^\circ\right)$$

97Ä 6Ä

Ä

$$7\sqrt{2} \sin\left(\frac{\pi}{6} + 07\pi\right)$$

75Ä

5.2

$$\sqrt{2} \sin\left(\frac{\pi}{6}\right)$$

$$-\sqrt{2} \cos\left(\frac{\pi}{6}\right)$$

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

0 ×

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

Ä ×

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

Ä

6

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

7) FBÄ

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

5.3

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

$$\sqrt{2} \left(\frac{1}{2} \sqrt{2} \cos\left(\frac{\pi}{6}\right) + 5\sqrt{2} \sin\left(\frac{\pi}{6}\right) \right)$$

6.

6.1

$$6.1.1 \quad A \vec{a} + a \vec{b} = A \cos \alpha \vec{a} + a \vec{b}$$

0Ä7KÄÖ

6.1.2 A7D 66FÖ

Ä 1Ä7E OSEZ

Ä 2Ä7E 5bE

Ä 3Ä7E 7ÄÄ

Ä 4Ä7E 9bE

45Ä45Ä

Ä 5Ä7E +Ä

6.1.3 A7E7E → ä7E7-

55A7E7E 5ÄE

Ä7EÄ

6.2

A7E7E Ä

6.3

6.3.1 A7E7E 7E7E

)Ä7E7E 7E7E

Ä7E

6.3.2 A7E7E 7E7E 7E7E

Ä7E7E 7E7E

6.4

7E7E C§

3 7E7E 7E7E

Ä7E7E 7E7E 3/4

3 Ä 7E7E 7E7E

Ä

6.5

Ä7E7E 7E7E 7E7E 7E7E

E7E7E 7E7E 7E7E

7E7E 7E7E C§

3

6.6

6.6

7IF94;UCÑÑDFFFPAÔ

#ÖÈX]7FJ;BÄ707&

7ÄÄÔ

7.

7.1

97N}ÑE7A0E

7Ä Ä1Q]7IF98]7ÄE7-BÄ97-

80H6575H51V8

]7E0A37]7IF9êE.

]7IF9E7Ä

7.2

7Ä7C§

3E7N}Ñ

#75Ä

7.3

XI\ 3.3 7E07N}ÑE

A]7ê]7FÈ]75FJZ]7Ä

8.

8.1

8.1.1 KOC]E7N}ÑE

NÄ

7

8186547MÖH

A7CÖN}ÑE]EÖH

78NÍ 10% 68,74 68,74 68,74 68,74

0B]7ÈÿF6540C7Á

7èQÁ70E

9.3

A00CF654ÈÿFMA

A00IF9007070E

A000È7000E01A0Í

0A0P70A0Ä

9.4

A00CF65-

4ÈÿF?

MÁ0IF90070A

A00A0000700A

9.5

9.5.1 7E650+A000V0A

8ÈF65ÄFC§

10 ÈE:Ä0+5FM

96 ÈÄ0BAE

9.5.2 7E650+000075ÈÄÈ

97N.d\

2.4 Ñ

5.3 M

6.5 07è2A0AP

1,0AÑK

9.5.1 N0

10.

00N 0A

10' $F(0.377x) \cdot 6Y + X55$

$E(7.7) \cdot 0.007$

$A(4e - 0.02) \cdot 0.1 \cdot 6.7$

$\hat{A} \quad 20 \cdot 1.98 \cdot 1.6$

11' $0F2 + XF86 \cdot \hat{A}$

$\hat{C}E0, N \cdot \hat{A}$

GL900

19' $0p0, +e \cdot 7.7 \cdot e \cdot \hat{C}3 +$

$5.7e \cdot \hat{C}3 + 5.7 \cdot 6.5 \cdot 6.7 \cdot \hat{A} \cdot \hat{C}3$

1\ $+e \cdot \hat{C}3 + 5.7 \cdot 7.7 \cdot e \cdot \hat{A} \cdot \hat{C}3$

$\hat{C}3 + 5\hat{A}$

$+e \cdot \hat{C}3 + 5.7 \cdot 4.7 \cdot \hat{A} \cdot \hat{C}3 \cdot e \cdot 5 \cdot \hat{F} \cdot \hat{A} \cdot \hat{C}3$

$3.9 \cdot 7.7 \cdot \hat{A} \cdot \hat{C}3 - \hat{C}3 - \hat{G} \cdot \hat{L} \cdot \hat{A} \cdot \hat{C}3$

$\hat{A} \cdot \hat{C}3 \cdot \hat{M} \cdot \hat{O}, \hat{Y} \cdot \hat{F} \cdot \hat{A}$

1\ $+e \cdot \hat{C}3 + 5\% \cdot \hat{C}3 + e \cdot \hat{C}3 + 5 \cdot \hat{L} \cdot \hat{A} \cdot \hat{C}3$

$\hat{A} \cdot \hat{C}3 \cdot \hat{M} \cdot \hat{O} \quad \hat{A} \cdot \hat{C}3 - \hat{G} \cdot \hat{L} \cdot \hat{A} \cdot \hat{C}3$

$\hat{C}3 \cdot 3 + 5\hat{A}$

$+e \cdot \hat{C}3 + 5.7 \cdot e \cdot \hat{C}3 + 5 \cdot \hat{L} \cdot \hat{A} \cdot \hat{C}3 - (\hat{Y} \cdot \hat{O})$

$3\hat{A} \cdot \hat{C}3 \cdot \hat{M} \cdot \hat{O} \cdot \hat{A} \cdot \hat{C}3 \cdot \hat{C}3 - \hat{F} \cdot \hat{F} \cdot \hat{y}$

$= \hat{N} - \hat{A}$

1\ $7.7 \cdot 6 \cdot \hat{C}3 \cdot \hat{C}3 + e \cdot \hat{A}, 4 \cdot \hat{L} \cdot \hat{C}3 + 5$

$* \hat{A} \cdot \hat{C}3 \cdot \hat{C}3 + e \cdot \hat{C}3 + 5, = \hat{N} \cdot e \cdot \hat{C}3 + 5 * \hat{A} \cdot \hat{C}3 \cdot \hat{C}3 + e \cdot \hat{C}3 + 5$

$, = \hat{N} \hat{A}$

13' $+e \cdot 7.7 \cdot \hat{A} \cdot \hat{C}3 * 6 \cdot \hat{L} \cdot \hat{A}$

$' - (\hat{C}3 \cdot \hat{A} \cdot e \cdot \hat{F} \cdot \hat{A} \cdot \hat{A} \cdot e \cdot \hat{C}3$

$\hat{C}3 + 5F + e$

$e \cdot \hat{C}3 + 5F \cdot \hat{C}3 + 5 \cdot 9 \cdot \hat{C}3 \cdot 9 * \hat{E}$

$, \hat{C}3$

$+ \hat{A}$

ÄÑÈ 2FÄC

88PFÄ78CS+Ä

1X 7E7*6X78ZNG÷

+e7Ä0-(0FE+eC3+57Ä

1\ 7Äa7E7*6FE+eC3+5X

86Öt 551378D+eCÄ

1q Äe86CÄ\$ ÖpeC3+597Ä

1q' %5Äa7E7*6FE+eC3+5X¹

86Öt 5513785-(5ÄX

1q ÄÄX+e7E8E7EÄ

ÄÄÄÄÄ86EÄ Ä

%7\$Ä -!|=ZÖ-8,0FEY€ 27.Ä7NGVG.CEEY f D 4W 7

1\ ±UU ÄÄÄÄÄEÄYÄD >Ñ®

0793+5A~~P~~*+~~F~~ U - ~~P~~78% FBC~~0~~

A~~0~~1=08~~E~~e~~C~~3+5~~A~~, ~~A~~

1~~0~~' 7E7*6j10A~~0~~7~~0~~7~~0~~

A~~0~~7~~7~~+e~~C~~0~~7~~E~~0~~5~~1~~P+e~~C~~0 . ~~A~~0

0~~0~~7~~8~~2~~0~~

1~~0~~ A~~0~~7~~7~~+e~~C~~3+56M0~~2~~5~~5~~5~~5~~+~~P~~

7-, P15~~7~~7~~0~~0~~0~~+e~~C~~3+51X4(~~1~~6

~~0~~7~~7~~-*, B7-~~X~~8~~0~~7~~0~~

03%5~~5~~5~~5~~

1~~0~~ A~~0~~7~~0~~7~~0~~+e~~C~~3+5~~0~~7~~0~~

E7*6jA~~0~~7~~0~~+e~~C~~3+5~~A~~

1~~0~~ 7E7*6j~~A~~E+e~~C~~3+5X86~~0~~1~~5~~

C~~0~~1~~0~~7~~0~~IF9~~0~~ 5~~A~~

1~~0~~ 7~~0~~7~~0~~2A~~0~~X+~~A~~8~~0~~

E~~E~~+e~~C~~3+5X4~~0~~A~~0~~X+~~A~~7~~0~~*6~~2~~

A~~0~~X+~~A~~7=,%P657~~0~~*6~~X~~8~~0~~7~~0~~, ~~E~~

X~~0~~84A~~0~~- -GL*~~A~~0

1~~0~~ 7e~~7~~7~~0~~+e~~C~~3+5A7~~0~~7~~0~~FJ

. ~~7~~FJ*~~7~~1E~~A~~

1~~0~~ *)~~0~~8~~0~~7~~0~~+e~~C~~3+5F+e~~C~~3+5~~7~~7~~0~~

7~~A~~EG; ~~7~~9~~A~~EG }

CS~~0~~

0~~0~~5~~0~~7~~0~~LU~~7~~PA~~0~~LF+X, ~~x~~

~~A~~e~~B~~+5+0Uj 8~~0~~7~~0~~+e~~C~~3+5F+e~~C~~3+5~~7~~7~~0~~+~~x~~

0~~0~~A) 5~~0~~k~~0~~7~~0~~+e~~C~~3+5F+e~~C~~3+5%~~7~~

8~~0~~7~~0~~7~~0~~+~~x~~

~~A~~7~~A~~EG~~0~~

h		AõP	Aõö
2.1.1	Aô õö	7e0	UJ- /AõCX88
		A& ?	1V811705 ö
		1@	1V8114N d\ 3.7.3 Nö
		68A ê Ä 7 N@F2 +A	ÔV8783Aê FVCS+88(YA
		7F9A x	V7F9AêC ÔF9A
		Z*)ah ö	=AZ*)ã XAE .1FA
		Z*)A O	ãZ*)9Aö
2.1.2	CIAô õö	:UJ-	89UJ- /Aã 68
		CCK	1V8114N d\ 1.4.1 Nö
		CN	1V8114N d\ 1.4.1 Nö
		5P	1V8114N d\ 1.4.1 Nö
		@	1V8114N d\ 1.4.1 Nö

N@OSê

2. A 7911 7500

N COS 500

AÑ 2000

F AÑ B AÑ.

2 C 100

4 Ct

N COS 500 FZX

S 1000 AÑ COS 500

h		AñP	Añö
2.1.1	Aö Ñb	ñ0	UJ— /JGCHñ 08\$
		ñ&	Ä 1ñ+× Ä 2ñV81ññ& ñ\$ñ
		1ñ	1V81ñññ\ 3.7.3 Nñ ñ
		7F9ñ	ññ7F9ññ 7ññF9ññ
		Z*)ññ	=ñZ*)ññXññ& ññññ
2.1.3	ñ Añ ö	ññ	1V81ñññ\ 1.3.1 Nñ ñ
		ññ	1V81ñññ\ 3.2 ññ ñ
		ñ	Ä 1ññññ7-ñ ñññ& Ä 2ññ

'!n '		Aô Ñ 3P	Aô Ñ 7 ö	
2.2.2 Ä1 Å	° - &Aô 6 7 ö	<p>ö = Ñ é x</p>	5 6	<p>\ é xM0 u 6 ¶@ N©- Lb Ô- 7 È) ž] ó ú 4 1 J Š ` - #{ È È G} ‡ C J 1 ~ = Ñ § Ä Î Lu È Å È é x i ž Í i A Ñ B Ä N p L™ x È 1 ~ L N È 4 * 6 Ä é x M D \$ 5 1 y é M ' F > | 5, 8 A ô Ñ Ä H / ð, ' Ç 4 0 F 0 5 6 x 8 Y ¨ -, ' Ç 3 0 F Ø 4 6 x 0 8 \, ' Ç 1 0 F Ø 3 6 Ä Z È - (£ µ é, ' = Ç 6 Ä</p>
		<p>% ? # N › ÿ Ä \$ G F ? # { B é x</p>	5 6	<p>\ é x i ž Í i A Ñ B Ä Í i ° _ Ä Í i Ö z Ä ~ M ' W Ä 8 * 6 W Ä 1 ~ W 1 y é M ' F > | 5, 8 A ô Ñ Ä H / ð, ' Ç 4 0 F 0 5 6 x 8 Y ¨ -, ' Ç 3 0 F Ø 4 6 x 0 8 \, ' Ç 1 0 F Ø 3 6 Ä Z È - (£ µ é, ' = Ç 6 Ä</p>
		<p>1 ~ Ð * = Ñ é x</p>	5 6	<p>\ é x M 0 ~ M ' ¶ @ J Ñ 3 + 5 È = Ñ B 3 . D u 6 Ä M 0 " r \$! • 6 Ä È é x i ž J Ñ 3 + 5, ' 1 ~ Ð * = Ñ 8 * 6 W Ä ¼ ' W Ä M • W Ä 1 ~ W Ä ? ö 9 3 W 1 y é M ' F > | 5, 8 A ô Ñ Ä H / ð, ' Ç 4 0 F 0 5 6 x 8 Y ¨ -, ' Ç 3 0 F Ø 4 6 x 0 8 \, ' Ç 1 0 F Ø 3 6 Ä Z È - (£ µ é, ' = Ç 6 Ä</p>
		<p>Ä U Ä G ý ? ± 1 ~ L ì é x</p>	5 6	<p>\ é x i ž ê ^ G } 7 Ä N ' x f Ê Ä Ä U ý Ä Ä 4 5 ž Ú í Ä » > 6 Ä Ä x » Ä G } ‡ 1 ~ = Ñ § Ä Î Lu È Å 1 y é M ' F > | 5, 8 A ô Ñ Ä H / ð, ' Ç 4 0 F 0 5 6 x 8 Y ¨ -, ' Ç 3 0 F Ø 4 6 x 0 8 \, ' Ç 1 0 F Ø 3 6 Ä Z È - (£ µ é, ' = Ç 6 Ä</p>

		<p>7ë Ct</p>	<p>6 6</p>	<p>7900758A0 Ñ Ä 13-5F5\$ÑÔAË 2 6x Ä 2166ÑÔAË 2 6x Ä 314*6=ÑÔAË 2 6 Ä 1. 71007NA7Ë AË1V8Ë È 707CÄ</p>	<p>QELÛ</p>					
<p>2.2.2 Ä 2Å</p>	<p>Ñ &6 7ö</p>	<p>7ë</p>	<p>5 9 6</p>	<p>1. 8 2019 x 1 8 18100 7Z8NÉA¾ 5ÑGÄA5 [%NFB=ÑGÄ ZÇ 2 60Q 4 6Ä 2. 8 2019 x 1 8 18100 7Z8NÉA¾ 5ÑGÄA5 [%NFB=ÑGÄ ZÇ 3 6Ä 0Q 9 6Ä N06j 9 6Ä 1. 0NG=00 05Ä 05A00 2. 718206 È8FPAË</p>	<p>Û</p>	<p>30 7</p>	<p>1</p>	<p>60 7</p>	<p>1</p>	<p>Û</p>

				<p>1. 1. N. C. C. S. e Ä 1 e Ä 9. Y. + 5 N. C. F. 68 A. F. N. C. F. 68 Ä P. M. P. Ä. ñ È 2 6 ×</p> <p>2. N. C. 7. e Ä 5 N. C. C. O C. S. Ä Ö Ä 1 9# Ä. F. B. 0. 8. Ä C. I. S. P. - P. T. E. Ä. ñ F. B. C. Ä C. I. S. P. - P. T. S. Ä. F. Ä (C. I. S. A. W.) Ä. F. B. Ä. Ä. ñ Ä 2 Ä Ä. S. H. 0. 8. Ä C. I. S. P. - I. R. E. Ä. ñ F. H. C. Ä C. I. S. P. - I. R. S. Ä. F. Y ~ Ä C. I. S. A. W. Ä. Ä. F. 5 5 Ä 0. 8. Ä C. C. R. C. - C. S. E. R. E.) × Ä 3 Ä 9. 8. Ä C. I. S. A. W. Ä</p> <p>5 S. A. Ä. ñ 9 F # 4 0; 8 (C. I. S. P. - C. I. S. E. F. C. I. S. P. - C. I. S. O.) × : 0. N. C. % C. C. 2 6 6 6 6 È 0. 9. Ä. ñ = 3 Ä. C. È Ä. 6. 0. Q Ä</p> <p>#Ä 1. Ä. P. N. Ä. e Ä</p> <p>2. Ä. P. N. Ä. F. 5. 4. ä</p> <p>2023 x 1 8 1 » F. 5. 9. Z. 8. / 5. d</p> <p>C. H. 7. - 0. 0. Ä. Ä Ä. 4. 1. Ä. F. 6. 5 Ä. e. 8. 0. 0. 6. Ä Ä. C. Ä. F. / 0. Ä. Ä. Ä. [6. 1. Ä.</p> <p>3.] 7. 1. 0. 0. / 7. N. Ä. 7. È Ä. ñ - Ä. 1. V. 8. È Ä. 1. 8. Ä È 7. 0. / C. Ä</p>
--	--	--	--	--

		<p>7é N@</p>	<p>6 6</p>	<p>1. 7é 96é 24é G ; 55é. F -æ %é (CNNVD)é y HONÇ Ç 2 6 È %6 4 6Ä 2. 7é - é J Ä- Ä F 24é G N55 E%D4É%D019é È 2 6 È 99é 1 6ÉÇ × Ö Ä 1Ä 7é.FÈ é Ä Ä 2Ä -é/é Né/é+é ÉFé Aé 9é/é 4é/é+é /éFéL.Ä Ä 3Ä é F]-é/é 4÷+éFé é</p>
		<p>8</p>	<p>4 6</p>	<p>8 2019 × 1 8 1 é é =é Ä NQéNCOSe Å È ZNéW¾ 30 7 s é 1 ZÇ 1 6É6 4 6Ä</p>

2.2.2 Ä 3Å	Ö &6 7ö	6	30 6	<p>7.Ä7'</p> <p>A7' =ÄÖ</p> <p>8.Ä7*ö</p> <p>FÄ&</p> <p>A7Ä7*ö</p> <p>9A76ÄÑÇ</p> <p>A769ÄÑÖÇ</p> <p>6Ä7*ö /A7Ä *FÄ</p> <p>Ö F 6%6Ä</p>	0
		8*6WÇ 6	10 6	<p>7.Ä7E</p> <p>9Ä6A¾ 5 E</p> <p>0Z0Z0Ä:</p> <p>Ä7Ä</p> <p>6Cä 5 EÖÖ</p> <p>FÄ</p> <p>8.Ä7*ö</p> <p>A7*ö =A7E</p> <p>A7EÄ7Ä7*ö</p> <p>FÄÄ7Ä</p> <p>A7EÄ</p> <p>A7EÄ7EÄ7P+O</p> <p>FÄ</p> <p>9A7ÄÄÑÇ</p> <p>· =100%Ä7 -A7*ö</p> <p>Ä /A7*ö</p> <p>·+7Ä}</p> <p>8=Ä * . **%Ä</p>	

				<p>:Ö*6W6AÑÇ</p> <p>a. 7A 7A7*Ä7'</p> <p>Ç =Fn-) *100*E1</p> <p>b. 7A ô 70A7*Ä7'</p> <p>Ç =Fn+) *100*E2</p> <p>Ö Fn=10 × E1=0.3 × E2= 0.2Ä</p> <p>A7Ç 06AÑÇ</p>
04				
<p>Ñ</p> <p>15AÑ</p>	<p>&</p>	<p>AÑPÄPÄ17&</p> <p>ÉÄÄÄ</p> <p>A7AÄ</p> <p>4AÑ ÇNÄÄÉ</p> <p>ËÄ759HFAô</p> <p>ÑÄÄ4Ä8Eç</p> <p>6FZ15HÄÄÄ</p>		

1

JA0# 3.2 v Ñ ú ° _ . &B 4öAô Ñ] ° _ . &B 4öAô Ñ Ç
 6AÑ1Ç ?ô | È§ f ² ; ÈAÑ1Ç +%o ? &é > T } È ? &é > 1\9 } 8= Ä • Ö
 ° _ . &B 4öAô Ñ Ç 6AÑ1Ç ² ; Ö

7B4AÑ0 ÇAÑ

1Ç A)AÑ1ÇBA0Q

Q1A)BA0QBA0Q

6ÇA

J:F A ÇAÑ1ÇBA0Q

A)B 7AÑ1ÇA)BÁ

0Q ÇA)B 7A)BÁ

6Ç)A)B 7A)BÁ

1ÇA

fA)ECE

20%ZA)ECE

15%BAô

Ç=4AÑ1Çà

2 =F:A)B)F ô

BA)0WAÇ=4AÑ1ÇA)0W

;(BA)0WAÇ=4AÑ1ÇZA•

)0W;(BAÑ1ÇBA0Q)•

0W AÇ=4AÑ1Ç04B)A)Aô

JÉ 1 }BA)Ç=4AÑ1Ç

Ö (BAÑ1Ç)A

95)AÑÇ

B)Ç

6 È

5 }A)AÑ1Ç

6B

1 }A)AÑ1Ç

561					
Aô	Aô 1	Aô 2	Aô 3	Aô 4	Aô 5

=0					
Å ê 1	28.0 6 ÖQÅ	30.0 6 ÖQÅ	22.0 6 Ö6Å	25.0 6 ÖQÅ	20.0 6 Ö6Å
Å ê 2	28.0 6 ÖQÅ	28.0 6 ÖÅ	28.0 6 ÖQÅ	24.0 6 ÖÅ	22.0 6 Å' Q QQ 6Å
Å ê 3	26.0 6 ÖÅ	28.0 6 ÖÅ	25.0 6 ÖÅ	25.0 6 ÖQÅ	23.0 6 ÖÅ
Å ê 4	24.0 6 Ö 6Å	24.0 6 ÖÅ	28.0 6 ÖQÅ	23.0 6 ÖÅ	20.0 6 Ö6Å
Å ê 5	22.0 6 Ö6Å	22.0 6 Ö6Å	24.0 6 Ö Å	22.0 6 Ö6Å	22.0 6 Ö 6Å
Å ê 6	22.0 6 Ö6Å				

)AÑFÑBAQ

k

θAô |0WÈ-4ñÑà

0WAð 2 =F:BAÑAQ

0WA6-4ñÑQ

BAÑAQDWAô

6-4ñÑÑ4FñAð

JÊ 1 }BA6-4ñÑÑ

Ö (BAÑÑ/Ä

b.f)äF 7|A6-4ñ

6ñÑÑÑ

0WÈ0AÑÑ

9ÑÑ4A6

ñF 78TÑÑ4AÑ\

2.2.2Ä 1Ä

-]ÄA6ÄP6Z06Z06AÑC

BA6ÄP6x

ñ\ 2.2.2Ä 1Ä AB-]ÄA6ÄP6x

ñ4A6 =AÄ

B4A6AÑÖ

A791\ 2.2.2Ä 1Ä B3P6F6AÑC

& B4ö A6 Ä7@ 5 ñ\ 2.2.2Ä 1Ä

A76ñ7@ 7 ñ

7ñ\ 2.2.2Ä 1Ä B3Z06Z06

Ä

ñ4A6 =AÄ

1. A $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$
 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$
 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

Ä 1 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

7 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

8 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

9 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

: $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

7 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

Ä 2 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

7 = $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

8 = $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

9 = $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

: = $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

2x

= $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

< $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

Ä 3 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

77 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

87 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

97 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

: $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

7 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

7 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

Ä 4 $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

ð

7 = $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

8 = $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

90° \times

: \cos $\frac{A}{2}$

$\frac{1}{2}$

$\frac{1}{2}$

1.

1.1 Q7G8AÄÄ

1.2 A7J99EBÑ3+57ABAÑ

A7J99AÑ70FAÑ58G+a

Ñ97IF9È8G(1KIF9Á7#

È KZ67è97IF9Á7e

Ñ1\ 3.7 Ä 3.8.1 NÄ

1.3 Q7IF9N6J7A7#Ä

Q7J7IF977A777LÄ

57&Q7IF9ÄÑ

1.4 A7597A0J7IF9èE7

Ä

1.5 7Ä7A7#V

Ä91A77A7

È7E7

Ä

2.

2.1

2.1.1 A7A7#Ä

2.1.2 CA7A7#Ä

2.1.3 YWA7A7#Ä

2.2

2.2.1 Ä7A7#Ä

2.2.2 A67Ö

Ä 1Ä67A7#Ä

Ä 2Ä67A7#Ä

Ä 306707Ä

3.

3.1

A01\ 2.1.1 N0 2.1.2 N0 2.1.3 N00N

EMON©IV8A0B0XÄ

3.2

3.2.1 A09H\ 2.20P6Ä

0ÄN0470S0Ä

Ä 19H\ 2.2.2Ä 1Ä0P6ÄN00 A×

Ä 29H\ 2.2.2Ä 2Ä0P6ÄN00 BÄ

3.2.2 0ÄN0

Ä 1040Ä AN0

V1\ 2.2.2Ä 1Ä0P6ÄN00

0Ä07Ä

Ä 2040ÄN0

V1\ 2.2.2Ä 2Ä0P6ÄN00 2.2.2Ä 2Ä0

A040B-0Ä

3.2.3 A070 2.2.2Ä 1Ä0P6ÄN00 90%:

Ä 60%Ä0C16+aB*6+aX0J

Ä060Ä070IBÄ06*6+a0Ä

*6+aÄ

3.2.4 0Ä0C =A+BÄ

3.3

0Ä060Ä070

A7I-0E%\$BÄ

3.6.2 % BÄ=Cü7A93D=ÄW

ÄGÄ

3.6.3 A7I0B99-Ä

F0%\$BÄB%Ca7Ä

3.7

3.7.1 Ä=1V8\1\

3.1 Ä

3.4 Ä0XÄ

3.7.2 VÄ7Ä

3.7.3 ÄZFE\

3.5.4 N0N7

XÄ

3.8

3.8.1 A7I07IF9EBÄ\

1.4.4 N0

ÄQIF9B

Ä 1Ä7FHÄ+5B0IF9é

V0F#-6BZ.B5K7Ä.

Ä 2Ä7FH0IF9V0

ÄV0F#6BZ.B5K7Ä

Aä.

Ä 3ÄNÄ\

1.4.4Ä 4Ä -Ä

LÄNÄ\Ä7EÄ79A7#

ÄIF9Ä

3.8.2 A7I0Ä7Ä7Ä

	<p>7(áö 5(#AÄi LN6EÄNE 6KÖÖ</p>	<p>Ä Ö</p>
%Ñ	<p>5-4Ö 5D *FD=ÖÖ</p>	<p>66 P%N Ä Ö</p>
B	<p>)XN+5FBÈAñ *ÖÖ*6NE Z3+5È 6 Z=È</p>	<p>WE Ö Ä Ö</p>
D =Ñ	<p>ž ±E 1#AÖB%? N1Ö+5FDÈ Ø Q</p>	<p>Ö Ä Ö</p>
Är Ì	<p>X)Ö+5Fk35 +61ÖE %CÖ</p>	<p>Ö</p>
G Ì	<p>X +bé ÖÖÖw 1ÖCFÖET Ö Ö</p>	<p>Ö</p>
Ö 5\$	<p>ÖÖ 66 6D Ö\$ ~ Ö- Ö ÖÖ 66 Ö\$ Ö- Ö ;ÖÖÖ 66 Ä-ö ÖÑ ÖÖ ;ÖÖÖ Ö ÖÖ Ö ÖÖ Ö ÖÖ UÖÖ ÖÑ+5 C 66 ÖÖ ÖÖ Ö Ö 5Öö #Ö%Ä \$ C 66 6 6 Ö Ö\$ \$:5ÖÖ 66 66 Ö Ö\$ \$:5ÖÖ 66 Ö\$ Ö VT ÖÖ 66 Ö\$ Ö VT ÖÖ 66 Ö\$</p>	<p>Ö</p>

2. Ö3\$ÖÖWÖÖÖÖ

3. =ÖÖÖ ____ Ö ____ Ö# ____ Ö ____ Ö

12	849VC29ES+ce	2D	968 @WW-	8 -
13	849FK29ES+ce	2DDÓ		
14	T849FK29ES+ce	T8		23'
15	849FK29ES+ce	\$B82y		
16	849FK29E	28E8		
17	849ES+ce	28D		88 8j

1.2 849 X866E8F8

1849A7, 88+5(X866A

8495X, LNE86E

849*6X, LNE8

	1J	p
1	8686WLE6N9LE	868K 150'
2	868Cv8LES+ce	868D 96'
3	868C8LE	868K 369'
4	868Cv8LES+ce	868F8/G-vp Bj
5	8686WLE8 v8LES+ce	86858D 1168'
6	868C8LES+ce	8688YD8C-
7	868C8LES+ce	8688Ff 5566'
8	868C8LES+ce	86868Kw#88F8
9	8686WLE6N9LE88C8	86888F8887 TT8E8E

15	860780169ES+e	86078 596'
16	860760169ES+e	60780
17	860760169ES+e	860780169ES+e jó

1.3 600 600

40Fctá6EL7465101E5A

5%, LNEL6A2E*6X, L

NEA

1.4 600 600

óAí

7ÁB+5Á+5Áy

FVAZ (ae

5X+5(X

1+ÁBŞ1K65Ay

5

860760169ES+e

*D *E*6X, LNELA

Q%760210A+bE

XXX E

2. %7N

5-60, M%7Z+X%7F

)a+5A, 76aWZ-)=9BŞ3+555F

F5T5A77AgCV'

/1yB]

X, N(7A1)990i%727y5AEN

F70E4A

%7)6%7M01X66Ax

, E

68F%7P6, A

Q%760210A+bE

XXX %E=N

A XXX %E=N

3. 6F6

+bE 18 Z+5E 20 ZEQM; 6F6EQUO

7-7 10%N)E+5P5M/Q3+5

076a)B5*QBE4

ö

7) WINDOWSÄ LINUX 10E-5DÉCFBÄ

8) ORACLEÄ MYSQL 1ÄX3+5FCF? BÄ

9 WEB ÄX3+5CFÄ

: 55A7CF?4/ybÄ+5Ä51X7FCF?

BÄ

)3+5B\$F?3+5, hBpPÄ

)LÄ

=CF?1F , BÄ, BÄ

QCFB-50210A+bE

XXX CFB=

ö

XXX CFB=ö

4. D=Ñ

M0)+bp96Ep9=FCta6E6F?Ä

1yaLN(E)8Y+512,55A7Ä+5Ä-5Ä

ÄX 3+51FCW, AÄN1E=L€4

ö

7)Ä5ž1V8M0†, ×

8)+XÄ\$1V8M0†, ×

9)3+5Wd×

:)ÜXPCe ×

)gÄ+XLNÈ×

)%M1B×

=)ÄX=ÄX0%+X, ×

EM01X685Np)6Ä

Ny 50270A+bE

0D-50270A+bE

XXX EW

5. ALI =N

5. ALI =N

Ubp96EJ0ÄLF6&0

, ÄxFÜ . zQB+5F553+57-0FO=WA

W4XWEL46B, UGV76B

v=L50a55A-KA00+06A

K552h&N0Bp96E0=

GA5=NhEALN

i 7a7e)65FE-Ä

B=NACSA

1)hÄö

ÄÜ

7*24&

Ä=N

1+eBÈ 10 6H0504*6M0

45 6H*6È

2

NÄ

0ÄL-50270A+bE

XXX B+5¹

NxÄ

XXX B+500

6. Gp=N

6.1 XGDLÄGGWAÖRÄO-(E

4kL0, 5kb%D10LEE

0)Ä=N2T

12-16 YÄ 12*24-16*24 ÄE

GÄ

6.2 XGD)2#F08)Ä

6.3 XGD)2#F08)E%D

4E

0GG-50270A+bE

XXXXX G3

0Ä

XXXXX G1E

XXXXX G1

XXXXX G9100 XXXXX G91

kb%DE

7.)

) + b e l b : 5 j 6 A S + 5 A

SSL VPN A7A web Lb... 0

2	59B'						59
1	w ¹	Lb&	666	6D	AY&	7- OÅ	¼
2	w ¹	Lb&	666	AY&		7- OÅ	¼
3	Lb&	j 50	66	Ab+ö	abN	EY&	¼
4	Lb&	j 50	66	Ab+ö	abN	EY&	¼
5	OÅ	U°	EY&				¼
6	AN	3+5 !	C	66	AY&		¼
7	AN	Y=½		AY&		Ehk	

1	20		$\frac{1}{2} \frac{b}{a} \frac{1}{s} \frac{1}{s} \frac{1}{s}$ $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$
2	40		$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$
3	40		$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

2. $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$ $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$
 $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

3. $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$
 $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$
 $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

4. $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

5. $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

6

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$ $\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

$\frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s} \frac{1}{s}$

1x 4x

1. b) $\frac{1}{x^2} - \frac{1}{x^4}$

2

7. $\frac{1}{x^2} - \frac{1}{x^4}$

6. $= \frac{1}{x^2} - \frac{1}{x^4}$

1. $\frac{1}{x^2} - \frac{1}{x^4}$

1. $+\frac{1}{x^2} - \frac{1}{x^4}$

1.1 $+\frac{1}{x^2} - \frac{1}{x^4}$

1.2 $\frac{1}{x^2} - \frac{1}{x^4}$

1. $\frac{1}{x^2} - \frac{1}{x^4}$

1.3 $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

1.4 $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

8. $\frac{1}{x^2} - \frac{1}{x^4}$

6. $\frac{1}{x^2} - \frac{1}{x^4}$

1.5 $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

9. $\frac{1}{x^2} - \frac{1}{x^4}$

1 %

, $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

10. $\frac{1}{x^2} - \frac{1}{x^4}$

2. $\frac{1}{x^2} - \frac{1}{x^4}$

2.1 $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

11. $\frac{1}{x^2} - \frac{1}{x^4}$

2.2 $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

12. $\frac{1}{x^2} - \frac{1}{x^4}$

2.3 $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

13. $\frac{1}{x^2} - \frac{1}{x^4}$

1. *) $\frac{1}{x^2} - \frac{1}{x^4}$ $\frac{1}{x^2} - \frac{1}{x^4}$

1.1 ~~4k%L%#Fö~~ 1.7_s /D, F4Öx
 1.2 ~~D1244kb%D4BÖD=6VÖ5~~
 4ÖÖd6E8ÄB1\ 1VÖö 2 7s, F4ÖAB
 1\ 2-5 =VÖö 1 7s, F4ÖAB1\ 6-10 =VÖö 8000
 s, F4Öx: F ÄD6VÖö 5000 s, F4ÖÄ

2. ~~4ÖÖ-b55ÖÖKÄ~~
~~ÖÖT8\$bB+5Äa155Ö~~
 ÄS+Ö

2.1 ~~XÖÖP@b@e)Ö~~
~~Ö5+b@b@P@GÄ~~

2.2 ~~XÖÖP@b@+5Ö~~
~~Ö~~ VÖö 2000 s, F4ÖK 1Ö
~~Ö~~ 5000 s, F4ÖK 2 Ö 1 Ö 1 7s
~~, F4ÖK~~ 2 Ö 2 7s, F4ÖÄ

3. ~~ÖbÖÖ-EV8CXGÖ+Ös4ÖE~~
~~ÖÖÖbE4Ö~~ 10 7s, F4Ö
 ÖP@GÄ

13ÖÖ4
 1. CXGÖö
~~ÖÖ-CXGÄV8Ä/4 (TÄ(AÖ3Ä~~
 =ÖÖÄ

2. PÖÖ÷
 8<Ö5 Ö +bÖÖCS4ÖPÖÖPÖ4

~~Ö-NÖFÖPÖ4~~ ÖÖbÖCS 5 Z
 ÖÖPÖÄ

3. P0

3.1

+) 8. $BN * a + 10M$

, FJF1E{

FFJ $\beta + 0xj$ $0x0E0E$ SOZ

1. $Q = 5p^M$

$10h, 0$ $EC < 88F = 7 - 8y$

$\tilde{N}E\tilde{D}e\tilde{A}CS + \tilde{A}BOCCS + F\tilde{U}$

$1NF, = 3 + 7F\tilde{E}7 - N\tilde{A}7 - F\tilde{z}7 - \tilde{t}, \tilde{D}$

$\tilde{e} = 5F4\tilde{D} + \tilde{A}\tilde{v} = L\tilde{O}\tilde{A}\tilde{C}\tilde{A}$

$N\tilde{A}7\tilde{C}\tilde{A} = \tilde{D}\tilde{E}\tilde{C}$

$M\tilde{B} = \tilde{C}\tilde{U})\tilde{A})M\tilde{F}\tilde{E}$

$= \tilde{C}\tilde{O}\tilde{E}\tilde{v} - 55\tilde{O}\tilde{N} + G\tilde{8} * 6, \tilde{e}$

$x\tilde{z}\tilde{B}$

$M\tilde{F}\tilde{E}5C\tilde{E}\tilde{A}$

28 YÈ

$\tilde{A}\tilde{E}\tilde{u}X\tilde{8} * 6, \tilde{B}\tilde{F}\tilde{E}\tilde{C} < \tilde{A}\tilde{A}$

1. $Q\tilde{A} B * A\tilde{n}$

1. $\tilde{A}\tilde{E}\tilde{X}\tilde{A}\tilde{B}1\tilde{9}\tilde{C}\tilde{x}\tilde{s}\tilde{A}\tilde{Y}\tilde{s}\tilde{A}\tilde{7}\tilde{s}\tilde{F}\tilde{!}\tilde{A}\tilde{O}$

$\tilde{s}\tilde{F}\tilde{y}1\tilde{9}\tilde{C}\tilde{9}\tilde{s}\tilde{A}$

2. $91\tilde{9}\tilde{e} + b\tilde{x}\tilde{A}\tilde{n}\tilde{e}93\tilde{B}\tilde{X}\tilde{B}\tilde{A}\tilde{E}\tilde{K}\tilde{L}\tilde{O}\tilde{G}$

$6A + b\tilde{e}\tilde{s}\tilde{A}\tilde{Z} * b\tilde{C}\tilde{B}$, $(\tilde{x}\tilde{s}\tilde{A}\tilde{O}\tilde{s}\tilde{A}\tilde{Y}\tilde{s}\tilde{F}\tilde{!}$

$\tilde{A}\tilde{s}\tilde{E}\tilde{b}\tilde{O}4\tilde{C}\tilde{s} + \tilde{C}\tilde{z}\tilde{b}\tilde{c}\tilde{a}\tilde{A}\tilde{b}\tilde{e}\tilde{x}\tilde{!}$

$M\tilde{Z}\tilde{E}\tilde{X}\tilde{E}\tilde{b}\tilde{e}\tilde{8}\tilde{E}(\tilde{A}\tilde{C}\tilde{s} + \tilde{A}$

1. $p9s /.A\tilde{o}\tilde{o}$

1. $\tilde{B}\tilde{A}\tilde{p}\tilde{C}\tilde{F}\tilde{S}\tilde{F}\tilde{E}\tilde{B}$

$\tilde{O}\tilde{I}\tilde{E}1\tilde{9}\tilde{Z}\tilde{E}. \tilde{A}\tilde{o}, \tilde{A}\tilde{e}\tilde{C}\tilde{C}\tilde{s}\tilde{A}\tilde{n}\tilde{b}\tilde{e}\tilde{Y}, \tilde{e} + \dots$

$\tilde{a}\tilde{Z}\tilde{I}\tilde{E}\tilde{b}\tilde{e}\tilde{C}\tilde{J}\tilde{O}\tilde{7}\tilde{a}\tilde{A}$

2. $+b\tilde{e}\tilde{C}\tilde{h}\tilde{N}\tilde{e}\tilde{C}\tilde{D}, \tilde{h}\tilde{u}\tilde{X}\tilde{A}$

3. ~~666~~ ~~666~~ X, BE ~~666~~ D, ~~666~~

~~666~~ ~~666~~ ~~666~~ ~~666~~ ~~666~~

~~666~~ = ~~666~~

3.1 L ~~666~~ ~~666~~ FG6A

~~666~~

~~666~~ + X ×

3.2 L0-7+XA ~~666~~ ~~666~~ ~~666~~ XA ~~666~~ Y

~~666~~ 0, A ~~666~~ ~~666~~ ~~666~~ ~~666~~ X

CM ×

3.3 LA ~~666~~ XBE ~~666~~ ~~666~~ ~~666~~ ~~666~~ / ~~666~~ ?

Ä

3.4 ~~666~~ DE ~~666~~ (f+Ct ~~666~~ ~~666~~ ~~666~~ ~~666~~ Z ~~666~~ ~~666~~ ~~666~~)

~~666~~ ~~666~~ ~~666~~ + X + ~~666~~ ~~666~~ ~~666~~ ~~666~~ ~~666~~ XBE ~~666~~ Y

~~666~~ ~~666~~ Ä

: F ~~666~~ ~~666~~ ~~666~~ 2+X ~~666~~ ~~666~~ ~~666~~ ~~666~~ ~~666~~ X, +8. DE ~~666~~ ~~666~~ +5Ä5 +b~~666~~ e´

A7+X, ´ EÄ

1Ä Ä ;

180?Ebo- ~~666~~ , 4yb~~666~~ ~~666~~

1>0x91yÄ

280M4EÄE

891yÄ

380AÄÄÄ

+bpXA#CSÄÄ

+bÖ

Öo

pÖ

pÖ

ş Ö

ş Ö

+eBÖ

+eBÖ

0Ö

0 :

»ÁÉ

8# s,ú È i ž - æ 9 £# »# ?ô ¼ 1 í-1 ã 86Õ 2 ù o *Aí, ' ?ô È È _____ (

0 +bé)> _____ (0 %o) (001P¥Ä-

10' +bËo

ÖÅb0F¥É

JAÿjñe

1Ñ6É6QÑQ#

Ë6C0E2+9NËAî

Ä

ÄBË4ÖÏ

9Ñ6ÑÄÈË

Ë

Ä0Ë6BÈAÖF

-ÄCFA6jÄM

=QÄ6QÄFCM

BERÄM

ÄbEÄM5CÄCÄ

BCÄÄ3CÄC14/5FCF1ÄM

ÄÄbEÄFCF16FÄÄ

ÄbEÄZÄyÄÄ7ÄE Wv

3ü

8QÄ

19' 5Ä

QÄC*:6+aA+bEÄQÄÄ

CÄ

Ä)EÄ-jEÄa+bEÄZÄ

†C+Ä

QÄC*:6+aÄEÄQÄ

Ä/BÄ

EÄbEÄZÄ]5EÄÄEÄM

•CÄEÄ

ÄCÄEÄCÄÄ4

1F/B8F65E

Ä

Ä5CÄCÄCÄÄ3CÄCÄ

14/5Ä+bEÄFCF1ÄM

ÄÄCÄ+bEÄÄÄ

ÄQCÄCÄ

(9) EÄE

1\ F4ÖS+

ÄÄbEÄÄÄbEÄÄÄ

-(CS+ÄEÄÄÄF44*6EÄE)

E-0ÄCS+5ÄPÄEÄ

+bÄ5+Ö

_____E3++BÖ

_____Ä

1.

2023 6x4

2023 6x4

1. 2023 6x4

2. 2023 6x4

1& ¼ 00H

3. ~~ANSWER~~

4. ~~ANSWER~~

1\Ä

5 ê?±"r

1. NQ- 6ü Y

86Ö,©CW W -Lö 6Ñ - 9L€ œ (Ä ;1°0 7 ê Å0 ± ý Ä !:m Í - æ
 É5•5 1~# Ê1y-(£?±"r È ¼ @ ¶5•5 1~1y4x Ô#{Aô CE È- }3+5 "4yEî
 `1y4x Ô ¼4x?±"r È 7 ê Y 1~ f3+ M!• *0û Ä \!QN©- j¶F 0!• H F ¼
 Đj 7 ê Y 1~, '15 Wlb Ô È Lì 42«Aî 7, !" hF Eœ È% Cã 1~Lb ÔM0?± È
 Ä)5•5 0± » & È Lì J Ñ3+5 1~F >| È Q Y 3+5, '1~Lb Ô7- È È Đj
 1 J µG Y 1~ *Aî Ä

2. NQ-7

\ NQRAi-7Ø

1987ÖMÖY+5E*65Ä

ÄXÄYÄE

2i55EIIÄK6E0F

743+5p#5Y+ *AÄ

Y+5iÑ-75878D)Y

LJ+É(55LbÖL742ÄK3+5

, MÖxÄ5ÄÄ

3. NQ-Ä

Ji027B+5, 55MM*

WEÄF|´

M06±Ä5ABA±8ÖW?

=ÄFÖÖ-ÄLÄÖS

NQ=Ö3770J40A7Ä5A7Ä

A7Ä+510,555, 8-ÄÄÄS F?

B, ÄÖZ51

Aö ¼Ä

Ö¼LNEÜÖ

EÖ= Ö55W%K NpÄ

=50.

=Ñ 0	=Ñ	=Ñ
ē Ñ	<p>) 7ē p9X8 60F, 6€ 100\$ 57107A7, 8 E8+5(x067A 55%, ENELĀ* 6 X, LNEĀ</p> <p>) 7ē p9 X 860, 600\$ 57107A7, 8 3+5(x067A 55%, ENELĀ* 6X , LNEĀ</p> <p>) 7ē0 0A 66 00 1A\$ 57107A7, 8 55%, ENELĀ *6X, LNEĀ</p> <p>) 7ē0 pA7AB+5A+5A 57107A7 (10 E8+5(x067A *667A, ENELĀ* 6 X, LNEĀ</p>	<p>□ Ä DÅ</p> <p>□ Ä DÅ</p> <p>□ Ä DÅ</p> <p>□ Ä DÅ</p>
%? Ñ	<p>57107A7 *55% *h?0Å</p> <p>66 F00 50F0</p>	<p>□ Ä DÅ</p>
\$F? B	<p>) G9X=8+5F0PAMES 57107A7 *6X, LNEĀ Ä Z+5E 6 ZĖ OÅ</p>	<p>□ Ä DÅ</p>
D *=Ñ	<p>i ž v=L04 100F0\$ 57107A7 57107A7</p>	<p>□ Ä DÅ</p>
Ä1 LĪ	<p>X*) 09+5Fk05+0 (6107E 57107A7</p> <p>Ä 0Cä</p>	<p>□</p>
G? LĪ	<p>X 7ē Gw00L00w 57107A7 YÄ &</p> <p>Ä %C0M0P0T □</p>	<p>□</p>
ž B\$	<p>wLb& 666 60ÄY0\$ 7- OÅ</p> <p>wLb& 666 ÄY0\$ 7- 0 Å</p>	<p>□</p>

	W/E]TØ	
7	W W9ES+(E)TØ	112#K 113
8	WÖE	\$AD 318'
9	86ÖWWW/E]T ^M 0ES+(e	2DÖÖ
10	W]T0ES+(e	AD(ADÖ
11	11 DK29ES+(e	ÖÖ 375'Ö
12	86WVC29ES+(e	2D 968 ÖWW- 8 -
13	W8fFK29ES+(e	2DÖÖ
14	TW8fFK29ES+(e	T2Ö 23'
15	W8fFK29ES+(e	\$B89y
16	W8fFK29E	WÖf
17	W9ES+(e	2F)D 88 WÖj

4.1.2 7886ÖEÖF)Ö

ZÖYA7, Ö+5(xÖ)

Ö5X, LNEÖ

*Ö*6X, LNEÖ

	1J	ö
1	86ÖWWEÖ9LE	86ÖKÖ 150'
2	86ÖCvÖLES+(e	86ÖD 96'
3	1W]ÖLE	86ÖKÖ 369'
4	1WÖvÖLES+(e	86ÖFÖ/G-vp Bj
5	86ÖWWEÖWÖLES+(e	86Ö5ÖD 1168'
6	86ÖCÖÖLES+(e	86ÖÖYDÖÖC-
7	86ÖW%ÖLES+(e	86Ö%ÖFf 5566'
8	86ÖW]ÖLES+(e	86Ö6ÖW#ÖFÖ

FBI-Ä

%&N%MI0X066Ä9x, @

xE%MIÄ, Ä

Q%&50ZÄ0A7E

XXX %B

=Ä XXX %P=Ä

4. 3 SFB

7E 18 Z+5E 20 ZMOEQM, SFBEQU

0-+X, kX)Ä3+5S5ZdWE

3+5076a,)8E*EAE=LÄ

E

7) WINDOWSÄ LINUX 1Q+5NE\$FÄ

8) ORACLEÄ MYSQL 1ÄX3+5F\$FÄ

9 WEB ÄX3+5SFÄ

: 55A7\$FÄ/ÄbÄ+5Ä51Ä7F\$FÄ

BÄ

)3+5N\$FÄ3+5, hÄpPÄ

ÄLÄ

= \$FÄÄF , BE, BÄ

Q\$FÄ=50ZÄ0A7E

XXX \$FÄ

B=Ä XXX \$FÄ+Ä

4. 4 D=Ä

MO) 7Ä96Ä9=ÄtÄ6E\$FÄÄ

ÄyÄLNE8)ÄY+5Ä2Ä55A7Ä+5Ä+

5ÄX3+51Ä7EÄW, ÄÄÄE

v=LÄ

7)Ä5Ä1V8MÄÄ, Ä

8) ~~201 V 80k~~

4k06% D40

09121

12-16 YÁ 12*24-16*24 805

7Á

8XG70) 2#F08) 5Á

9XG7 (D) 2#F08) 6k% D46

Æ

091-508700A70

XXXXX Gy

01A

XXXXX G01A

XXXXX G0

L0NÆ

XXXXX G01A

XXXXX G0

0kb%D460

4.7) 05\$

)7e) Lb5+K6A+5Á

AN

SSL VPN A7Á

web Lb50.

2	5\$)B'				5\$
1	w ¹	Lb&	NSG7000-TG3680MAYBS	+V- QÁ	14
2	w ¹	Lb&	NSG3000-TY45AYBS	+V- QÁ	14
3	Lb&	i 50	SG6K-E2800-CNAb+5	+AbN +EYBS	14
4	Lb&	i 50	SG6K-C3100-CNAb+5	+AbN +EYBS	14
5	QÁ	UE°	RIS-TN(EYBS)		14
6	AN+5	,	DAS-LOG-600-CAYBS		14
7	AN	Y =1/2	TA-55629-DBAYBe	+EBS0	14
8	SSL VPN \$		VPN-1000-B1030-H5(EYBS)		14
9	: 5K6	\$	AC-1000-B1400-H5(EYBS)		14
10	: 5K6	\$	AC-1700(EYBS)		14
11	web AXLb&	LoGÁ	AW-600(EYBS)		14
12	web AXLb&	LoGÁ	AW-600(EYBS)		14

AN) 0905 50

v=L0

5CXGAYBS*6AXC104A- 04100

00E

7*24 8L5N

, P) ANACOCBS3AX

1

NOË 04 NËK

2 ß

)50

781A00A7E5\$-A1Ä

Ä

5. NQ

5.1 iN@N@45N@L04@CS6E

E(E00)

5.2 Å5F637eNË

AËZ N08A@6L0E4

OcW05LW

5.3 Å07e05@478E

7N6Ä

5.4 Å0370±Eÿ

7e j)N60

0+50X}CS+Ä

5.5 NN@X=0VAc0C@C@CS00

007A0000

4540 27 sN@-N000

M070eA0

6. =N

6.1 W1

Å07N@9355-N0

#4ZM00, 01 N6 140, 0

F)a%#FPZLÄpMÄ

6.2 y

Å01 N6ÄX, rM0N+55+

57-+0, 0E)F}550+5*0y

Ä3+5W7-L5ÄNÄ-S-

6.3

6.3 03i

X=0.1M0.2ALSL6<

=NF, SLL6+55AX, WDFJ)BA

6.4 W1

X=5.7y, z7-iF65PL7y

ş, eF65PL3+5051y

6.5 b

p9N, N40-N15N(9M7E

)E510y=0.5+71

Y+XE>0.5Y4 Uj

7. =63h

7.1 *)%WF0 kb%D451\$40

7.1.1 #4kNL%WF0

1.7 s /D, F40x

7.1.2 01244kb%D450d=0100

F40xkbE8B1\

1A00

2 7s, F40x

B1\ 2-5 =A00

1 7s, F40x

6-10 =A0

0 8000 s, F40x: F A0A00

5000 s, F40x

7.2 A40W50Uj

] XPe0y8\$

7e 0+5Ka15y

640

7.2.1 XA05P7eA0p21W5

JY 2 2A05

2 7s, F40A

7.3 7x7088

7-1V8CXGyo=10s

4000A

7e F40

10 7s

5700Pa

8.0

NCXV=L04

Ct&6



0



%14y



GF8



E

D=N



G1




UL=N



- 
- 

W%D46

- 
- 
- 

|

- 
- 
- 

9. 8

N<K0Mx70

7N© GCi +XB63<(HbA63p9Ci +XK

ÄfEopMO±NcJzi Åci ÅEÄi Äi B3B

Ci Äi ÅÄtEi Å/9Ci 8E9] =N0i +X19Ci

+XB70, 863Ä

	Ñ5 ! C 66			☐		
	Ñ ½ Ñ			☐		
	C \$ 666 6 6 ☐			☐		
	:5Ñ \$ 666 66 ☐			☐		
	:5Ñ \$ 66			☐		
	VT Ñ Ñ 66			☐		
	VT Ñ Ñ 66			☐		
[08AÑ	04					

11 Å 7 · & I ?

86 2024 2026 7

0 Ã Å 7 - Ä = [Ö ' Å

Û Å Æ §

9 Æ Å Å

Å Å H

Å

Å Æ É

3 Å Æ 4 Å Æ É

Ë 0 > BDC BT/F3 12.24 T1 0 2654T50 1 90.40 8C551.37A003.09.36 T#US

8Ö Ä 7ê Ä

1Äé 4dD0! 86ÖVÉ 2024-2026 5Ñ 7&

È30)È Ì]; _____ 7Ö*9 —7.

8ÑINCE Ä

2ÄÏÏÈ 9p6Ä

&

3ÊÖ 7& _____ ×Ñ 7& _____ Ä

4Äç7ÄB*Ö

Ä 1 7FÈ 7F 7Ö×

Ä 2 7ÖèAçD

Ä 3 7ÄÖH

Ä 4 Ä 84 7Ö

Ä 5 Ä 7F8B8T{ } 7Ö69 7Ö

8Ö7Ä 7Ñ 7Èy

7Ö 7Ö 7Ö 7D=7Äé

B* 7Ä 7Ö 7N©

COSê 7Ö 7Ö

7Ä 7Ä 7F 7Ö 7Ä 7Ä

7Ä 7= % 7Ö 7Ä 7C1

×

Ä 6 Ä 9- 7Ö 7Ö

CN 7Ö 7Ä 7Ä

7Ö 7Ö 7Ö 7Ä

5Ê 7Ö 7Ö 7Ä

7& 7Ö 7Ö 7Ä

6Ê _____ 7Ö 7Ä

Ä 7 ê Ö _____ 7Ä.1Ä

7Ö Ö _____ 7Ö.1Ä

O Ö _____ 7 8 _____

Å 7 Ö _____
 },WCÖ _____
 ` ð _____
 ÖÖ _____ α _____ 8 _____
 4jUÖ _____
 =Ö _____ W [Ö _____
 α UÖ _____ 6| Ñ _____
 63++BÖ _____ { j ' .1Ö _____
 3+ _____ Å=0Å
 (ÖÄ
 ÖÜM

Å 7 ê Ö _____ Ä.1Å
 ÖÖ _____ α _____ 8 _____

ê _____ ÄÄ _____ ÄÄÄÄ _____ Ä

=Ä*6Äy9Ä\$ÄÄÄ

Ä 86ÄÄ 2024-2026 ÄÄ ÄÄÄÄ*69

ÄÄÄÄ

Ä 81ÄÄ# _____ ÄÄÄÄ _____ Ä

*6ÄÄ

Ä ÄÄÄÄ

*6ÄÄÄÄ

Ä 7 ä Ö _____ Ä.1Ä

Ä Ö _____ Ä.1Ä

Ö Ö _____ 8 _____

Ä

ÄÄÄÄÄ

ÄÄÄÄ

ÄÄÄÄÄ

Ä68,7ÄÄ

(¥ 0Ä0 Ö _____
 Ê Ö _____
 Ê _____
 Ö Ö _____
 Ê _____
 Ê _____

HF 41210 _____ 08,70 08E
 Ð _____ Ä=0Ä 7Ä _____ ÄN00 Ä _____

7N00 N00N00 8Ä
)à68,7Ä0Ä0

1Ê _____ Ä=0 Ä _____ 08,70 (Ä Ä

ÄÄ (¥ 88,40 COSNÄ 7.

8FÄ0CÄE* 6Ä/4

79078,78 (¥ 0CS8A08Ä

ÄÄ3Ä

3Ä6U974NÄBÄÄ

78Ä78S+68,706

CS686OS+NÄ7FVCS+Ä

4Ä8,40CS60

(¥ 0Ä =0 Ö _____ Ê _____ CÄ _____ ×

Ö Ö _____ Ê _____ CÄ _____ ×

Ä

ÄÄNÄ019C+X '—48E

0Ä

68,78,ÄÄ8,40840

Ä

7Ä810C8ÄZ]7F658ÄÄ

8Ä0? _____ -68,40-Ä

(¥ 0 Ö _____ Ä.1Å

0 _____ 1Å

0 Ö _____ Ä.1Å

0 _____ 1Å

□ 8

~~EXE~~+58~~AA~~

~~AA~~ ~~EXE~~ ~~AA~~ ~~AA~~

F*~~EXE~~

~~EXE~~ ~~AA~~

~~EXE~~ ~~AA~~*

~~EXE~~

7-~~EXE~~

~~EXE~~

~~EXE~~ ~~AA~~

-~~EXE~~

~~EXE~~ ~~AA~~

~~EXE~~

~~EXE~~+58~~AA~~

~~EXE~~

5FÖ _____

8Ö ~~EXE~~ _____

00~~EXE~~ _____ ~~AA~~

_____ ~~AA~~ 8 ~~EXE~~ _____ ~~AA~~

5FÄ _____ ~~AA~~ ~~AA~~

00~~EXE~~ ~~AA~~

~~EXE~~ * ~~EXE~~

~~EXE~~ ~~AA~~ ~~AA~~

Ä ¥ _____ Ä

00~~EXE~~ S+

Ö

Ä 1 ~~EXE~~

Ä 2 ~~EXE~~ 6+a=7~~EXE~~

Ä 3 ~~EXE~~ 7~~EXE~~

Ä 4 7 9 7 0 0 H

Ä 5 0 0 F 0 F 0 0 0 0

9 0 0 0 0 0 0 0 0 0 0 0

C 8 7 9 0 0 { Ä

0 0 B 0 0 0 0

F 0 0 0 % C 0 0

Ä 1 0 0 0

9 0

Ä 2 0 0 k

Ä 3 0 0 B 0 0 0 0

Ä 4 0 0 A 0 0 B 0 F 0 A 0 C 0 S 0 + 0

Ä 5 0 0 0 0 0

_____ Ä

0 0 0 0 0 0 0 0 0 0 0 0 0 0

de Ä

Ä 0 0 0 0 0 0 0 0 0 0 0 0 0 0

\ FN 0 0 0 0 0 + 0 0

Ä N 0 0 0 = 0 0 0 0 0 0

y

- J 0 0 Ä

3 \ N 0 0 S 0 + 0 0 0 0

\ R 2 0 0 + 0 0 0 0 0 0 0 0 0 0 0 0

0 0 0 0

\ S 0 0 0 0 0 0 0 0 0 0 0 0 0 0

0 0 0 _____ 0 0 Ä

0 0 0 _____ 0 0 Ä

` 0 0 _____

F 0 F . 1 0 _____

+ e B 0 _____

P - 0 _____

000 _____ 8 _____

0

1. 4 2025 AJS

000

000

2. 7 2025 AJS 2x

BFD 000

$\hat{A}e_0$						
\hat{H}				$FDF.1$		
$63+\hat{e}$	$63+\hat{e}$			$+e B$		
	P-O			$+EB$		
\hat{E}	=		\hat{e}_0			$+B$
$\hat{C}OS\hat{e}$	=		\hat{e}_0			$+B$
$\hat{O}E$			\hat{E}			
$1CCX \times$			I			
$50/\hat{X}$				$\hat{e}_0 \hat{e}$		

14			1460 €	
*CV0g K			1460 €	
*CVK CV'			4284	
4yU93\$				
76,, 10	* Ä 1766N16Z Ä 2ACOSÄ Ä 3Ä _____		0-0 x	
7#				

Ö TÄRÄN L.

1K

L CCXÄUI88QÄ

J5 ı ' '	N@- =0 Ä 8 < =0 Å	7#
1		
2		

Ö

1. ~~Ä-ÖÄXDG~~

ı 5

x N_ı Ä

5 ~~ÖÄÄ~~

2. A79 ~~ÄNÄÄ~~

DAÄ

L. 2 ~~ÄÄÄ~~

Z ~~ÄÄÄ~~

Å 7 ä Ö _____ Ä.1Å

OÖ _____ 8 _____

$N \oplus 0$ 8 ≤ 0 Å	
$N \oplus X$	
$\hat{e} 0$	
\hat{p}	
$\hat{a} B$	
$8k$	
$= \hat{q}$	

J5 ı ' '	NC- =0 Ä 8 < =0 Å	7#
1		
2		

Ö

1. ~~Ä-ÄN@COS5XDG~~

; 5

8 N³ ~~Ä~~COSê 5 Y > Ät Ñ ~~Ä~~Äñ

Ä

2. ~~Ä7~~ ~~Ä~~

G ; 58

N³ Q FÄÑ

DAÑ

L. 4 ~~Ä~~COSÄÄ

~~Ä~~ZÄÄN@COSÄÄ

Ä 7 ê Ö _____Ä.1Ä

OÖ _____x _____8 _____

$N \odot 0$ 8 0 Å	
$N \odot X$	
$\hat{e} 0$	
\hat{p}	
$\hat{e} B$	
8k	
$= \tilde{N}$	
$= \tilde{N}$	
$N \odot \text{COS} \hat{e}$	
$N \odot F$	
7#	$C \tilde{N}$

~~TÄN~~ ~~3~~ ~~L~~.

~~4~~

~~L~~ ~~A~~ ~~Ä~~

=		U'		F6J CA#0	
60		¶		N@6|	
E				h(E	
Q	$______ \alpha ______ 8\frac{3}{4} ______ Q ______ C\grave{E} ______ \alpha$				
EY					
R	DN©		66Ñ	63++B	

6

1 ~~1008~~

2 ~~7/4~~

4Ã 5X

L(AE

~~70ÄEaA0FEeN+5BÄ~~

2023 6x4

$\frac{N \circ 0}{\delta \leq 0 \text{ \AA}}$	
$N \circ X$	
$\hat{e} \circ 0$	
\hat{p}	
$\hat{e} \text{ B}$	
$8k$	
$= \tilde{N}$	
$= \tilde{N}$	
$N \circ \text{COS} \hat{e}$	
$N \circ \text{F}$	
7#	\tilde{N} B4AÑ 5

~~4444~~

5!

$N_{\odot} = 0 \quad \ddot{A} \leq 0 \quad \text{Å}$

7#

$\hat{N} \hat{C} \hat{O}$ $\hat{S} \hat{K} \hat{O} \hat{A}$	
$\hat{N} \hat{C} \hat{K}$	
$\hat{e} \hat{O}$	
\hat{p}	
$\hat{a} \hat{B}$	
$\hat{8} \hat{k}$	
$= \hat{N}$	
$= \hat{N}$	
$\hat{N} \hat{C} \hat{O} \hat{S} \hat{e}$	
$\hat{N} \hat{C}$	
7#	\hat{N} B4 \hat{A} \hat{N} 5

~~6xÁ~~

8Ö Ä 7ê

A6*Ö



1.1 FOMI REO

Ö Å

Ä

86ÑE 20242026 α ÿ 1 ~ = Ñ 7

0 \tilde{A} ° \tilde{N} é x

~~0~~

- ...

75D6E-L

Ä

86ÑE 20242026 α ÿ 1 ~ = Ñ 7

- ...

0 ã Å 7 -

ã 6NÕ C+S..

9ã á

=Ñ0	=Ñ	¢	}..	!..	IAÑ
ãÑ	)70860F608 0Z1Ñ (0A6Z1Ñ 5ÑEÑ6ÑE 0Ñ	A7Ñ-5		Q	
	)70860F608 5Z1ÑA7Ñ+5(x 0A6Z1Ñ ÑEÑ6ÑE 0Ñ			Q	
	)70A 5[-Ñ(5Ñ01Ñ Ñ5Y ÑEÑ6ÑE 0Ñ	66 40Ñ		Q	
	)7A7AÑ+5Ñ+5A ÑÑA7(ÑÑ+5 (ÑAÑ1Ñ6A 1ÑEÑ6ÑE 0Ñ			Q	
%ÑÑ	ÑÑ4Ö ÑÑ-5EÑÑ-h ÑÑ	66 AÑÑE		Q	
6#B	)ÑÑ+5EÑ? ÑÑ*ÑÑ 5E 6Z=Ñ	#BÑAÑEÑ Q	Z3+	Q	
Ð =Ñ	ÑÑAÑÑB%ÑÑy ÑÑ+5EÑÑ	Q		Q	
Är L	X)Ñ-5FÑÑ5+(6 1ÑÑE f	ÄÑÑCÑ		α	
¢ L	X 7è ÑÑ Ä	Ä % CÑÑE &	9Tα Y		α
Ñ 5\$	w bÑ Ä	666 6DÑÑS ÑÑ	Ñ- Q		α
	bÑ w bÑ #0 5A	666 ÑÑS 66 Ä+ö ÑÑ ÑÑ	Ñ- Q		α

$\tilde{A}N+5$	;	C	66	\tilde{A}					
$\tilde{A}N$	$\cong \frac{1}{2}$	66	6	D6	6		α		



75D6E-L

Ä