

(3)

- (絲) (2) -

2.2

(1)	
(2)	,
(3)	
	,
	(tex)

“ ”

(1)

, 가

가

< 2.1>

	1lb	840yd	,
	1,000g	1,000m	
	1lb	300yd	,

- 1lb 가 840yd 1 .
- 1lb 가 840×2 yd 2 .
- 1lb 가 $840 \times N$ yd N .
- 가 가 .

[]

: 1lb (yd) , : 840(yd) .

120yd a gr(grain) N , a N

1lb(= 7,000gr) Xd ,

$$120yd : a \text{ gr} = Xyd : 7,000\text{gr}$$

$$X = \frac{120 \times 7,000}{a}$$

$$N = \frac{120 \times 7,000}{a \times 840} = \frac{1,000}{a}$$

$$= \frac{1,000}{120yd \text{ (gr)}}$$

$$120yd \text{ (gr)} = \frac{1,000}{}$$

(2)

가

< 2.2>

	9,000m	1g	,
	1,000m	1g	

(denier)

,

○ 9,000m 1g 1 .

○ 9,000m 2g 2 .

○ 9,000m Dg D .

, 가 .

[]

9,000m g .

100m bg D , b D ,

$$100m : bg = 9,000m : Dg$$

$$D = \frac{9,000b}{100} = 90b$$

$$= 90 \times 100m \quad (g)$$

$$100m \quad (g) = \frac{\quad}{90}$$

(3)

< 2.3> .

< 2.3>

	-	$\times 1.69337$	$\frac{5,314.85}{}$	$\frac{590.54}{}$
	$\times 0.59054$	-	$\frac{9,000}{meter}$	$\frac{1,000}{meter}$
	$\frac{5,314.85}{denier}$	$\frac{9,000}{denier}$	-	$\times 0.111$
	$\frac{590.54}{tex}$	$\frac{1,000}{tex}$	$\times 9$	-

() : 40s 가 $\rightarrow 5,314.85/40$ 133d

(4)

: No, : n, : β , : N ,
가 .

Nlb $840 \times No(1 - \frac{\beta}{100})$ yd , (N)

$$N = \frac{840 \times No(1 - \frac{\beta}{100})}{840 \times n}$$
$$= \frac{No(1 - \frac{\beta}{100})}{n}$$

$$\begin{aligned}
 &= \frac{(1 - \frac{1}{2})}{1 - \frac{1}{2}} \\
 &= \frac{1 - \frac{1}{2}}{1 - \frac{1}{2}} \\
 &= \frac{1 - \frac{1}{2}}{1 - \frac{1}{2}} \\
 &= \frac{1 - \frac{1}{2}}{1 - \frac{1}{2}}
 \end{aligned}$$

(5)

	(lb)	(yd)
N ₁	W ₁	840 × N ₁ × W ₁
N ₂	W ₂	840 × N ₂ × W ₂
⋮	⋮	⋮
N _i	W _i	840 × N _i × W _i
⋮	⋮	⋮
N _n	W _n	840 × N _n × W _n
—	Σ W _i	840 Σ N _i W _i

(N)

$$N = \frac{840 \Sigma N_i W_i}{840 \Sigma W_i} = \frac{\Sigma N_i W_i}{\Sigma W_i}$$

$$= \frac{(\quad \times \quad)}{\quad}$$

, , lb .

A .

() , .

(1) 1lb = 16oz = (A) gr = (B) g

[1,000 3,000 7,000 453.6 907.2]

(2) 1yd = 3ft = (A)in = (B) m

[16 36 25.4 0.9144 0.4572]

(3) 120yd (gr)

= $\frac{1,000}{120\text{yd}}$ (gr)

40s 120y (A)gr .

120yd 20gr (B) .

[10 20 25 35 50]

(3) A - B -

B .

() ,

.

(1) (A) (B)가 가
가 (C) , (D) (E)
가 가 (F) 2가 가 .
[]

(2) (A) , 1lb 가 (B)yd 1
, 가 (C)가 .
[120 840 가]

(3) (A) , (B)m 1g 1
, 가 (C) .
[가 1,000 9,000]

[]

	A	B	C	D	E	F
(1)						
(2)						
(3)						

. B .

(1) 40s 120yd (gr)

(2) 120yd 50gr .

(3) 30s 3 가. ,
.

(4) 2 가

$$[\quad] (1) 120\text{yd} \quad (\text{gr}) = \frac{100}{40} = 25(\text{gr})$$

$$(2) \quad = \frac{1,000}{50} = 20 (\quad)$$

$$(3) \quad = \frac{30}{3} = 10(\quad)$$

(4) $\frac{1,000}{9} = 0.22(\quad)$

$$[\quad]$$

가

$$W_a = W_0 (1 + a\%)^n$$

$$\frac{W_a - W_o}{W_o} \times 100 = a \dots\dots\dots (1)$$

$$W_a = \left(1 + \frac{a}{100}\right) \times W_0 \dots\dots\dots (2)$$

$$W_0 = \frac{W_a}{(1 + \frac{a}{100})} \dots\dots\dots (3)$$

8.5% 8.5% ()

$$W_{8.5} \quad (2)$$

$$W_{8.5} = (1 + \frac{8.5}{100}) \times W_0 \dots\dots\dots (4)$$

$$(2) \div (4)$$

$$\frac{W_a}{W_{8.5}} = \frac{(1 + \frac{a}{100}) \times W_0}{1.085 W_0}$$

$$W_a = W_{8.5} \times \frac{(1 + \frac{a}{100})}{1.075} \dots\dots\dots (5)$$

$$, W_{8.5} = \frac{100}{\dots\dots\dots} (\text{gr} / 120 \text{yd}) \quad .$$

a%

a)

a% = $(1 + \frac{a}{100}) \times$

= $\frac{a\%}{1 + \frac{a}{100}}$

b)

a% = $\times \frac{1 + \frac{a}{100}}{1.085}$

< 2.4> (%)

	8.5		12.0		0.4
	12.0		11.0		4.5
	15.0		6.5		2.0

·	C	·
	·(	)
(1)	40s	, 7% ,
	120yd	(gr) 가
	8.5%	, 120yd (gr)?
	7.0%	, 120yd (gr)?
(2)	50s 3	가. ,
	6%	.
(3)		30s가 54,100kg 36s가 20,270kg, 40s
	가 72,100kg	. 가.

[] (1) $\frac{1,000}{40} = 25 \text{ (gr/120yd)}$

$$25 \times \frac{1.07}{1.085} = 24.65 \text{ (gr / 120yd)}$$

(2) $\frac{50 \times (1 - 0.06)}{3} = 15.67s$

(3) $\frac{30 \times 54,100 + 36 \times 20,270 + 40 \times 72,100}{54,100 + 20,270 + 72,100} = 35.75$

2.3

	·	·

(1)

1)

· 20 20s

· 20 20/2s

· 20 5 3 20/5/3s

· 20 20/ / 2s

2)

· 20 1/20

· 20 2/20

· 20 5 3 3/5/20

· 20 2/ /20

3)

· 20 20tex

· 20 2/20

· 20 5 3 3/5/20

· 20 2/ /20

(2) ()

1)

· : ,

 : 18 Z Z 18/2.54cm

2)

· : ,

: 480 Z Z 480/m

2.4

(1)

’
.
,
,

(2)

..... sorter, fibrograph
..... micronaire
..... pressley
..... Shirley analyzer
..... colorimeter

(3)

..... Schopper , Uster automatic strength tester
..... lea tester
..... Uster evenness tester
..... spectrograph
..... imperfection indicator, classimat
.....
.....

.	B	.
A	B	가 , .
(1)	A ()	B ()
(A)		fibrogragh
(B)		Shirley analyser
(C)		colorimeter
(D)		pressley
(E)		micronaire
(2)	A ()	B ()
(A)		spectrograph
(B)		
(C)		classimat
(D)		
(E)		Uster evenness tester

[]

	A	B	C	D	E
(1)					
(2)					