

1. (15)

-
-
-
-

500 150 ;
 90 ,
 ;
 300 ;
 (,) , 60
 , 5 ,
 15% , 20% .

： () = 150+90*2+(300:5)+60=450 (3)

=
 300*15%=45 (3)
 =450+45=495 (3)
 =500-450=50 (2)
 =500-495 =5 (2)

.(2)

2. (10)

450 : 1600 300

1100 400 1200

20

300

:

(,)

= - ,(2)

: = 300 × 20000 = 6000 (1)

= 1600 + 450 + 1100 = 3150 (4)

= 6000 - 3150 = 2850 (3)

(

,

3. (12)

1						
10	1800					3000
11			1250		450	
	1100	600				7200
13		900	0			11700
14				400	700	
	500			700	500	7500

:

1						
10	1800	300	1500	0	300	3000
11	1700	450	1250	0	450	4950
12	1100	600	500	0	600	7200
13	900	900	0	0	900	11700
14	700	1100	0	400	700	9800
15	500	1200	0	700	500	7500

- 0,5 + 1

4. (9)

1,5

2

20

(V, P Q),

$$M = PQ : V \cdot (1)$$

$$\frac{1,5}{V/1,5} (1)$$

(Q) 2

$$0,5 Q (1)$$

(P) 20

$$20P (1)$$

(M*)

$$M^* = 20P \cdot 0,5Q : (V:1,5) = 15 PQ : V = 15 M (5)$$

15

5. (15)

$$Q = 12 - 2P$$

)

)

)

:) TR = PQ

$$TR = 12P - 2P^2 \quad (3)$$

)

$$= 6 - 0,5Q$$

$$TR = (6 - 0,5Q) Q = 6Q - 0,5Q^2 \quad (4)$$

)

$$\frac{dQ}{dP} \times \frac{P}{Q} = 2 \times \frac{P}{12-2P}$$

$$1 = 2 \times \frac{P}{12-2P}$$

$$= 3, (5)$$

Q

$$Q = 12 - 6 = 6,$$

$$TR = PQ = 18 (3)$$

):

TR.

TR

6. (9)

6000

3000

13200

4000

40000

7100

5000

3580

:

$$: 40000+5000++6000+(4000-3000)=52000$$

7. (15)

— 2350
2,4%;

() 2,5.

.1) (Y)

(Y - Y)/Y = 2.5 x 2.4% = -6%, (5)

2) :

(2350 - Y)/Y = -0.06.

Y = 2500 ; (3)

3) :

2350 - 2500 = - 150 . (2)

:

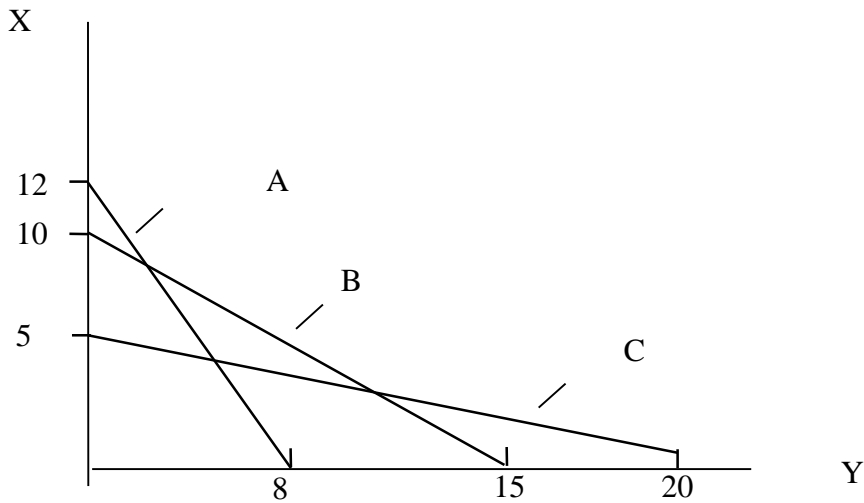
150

. (5)

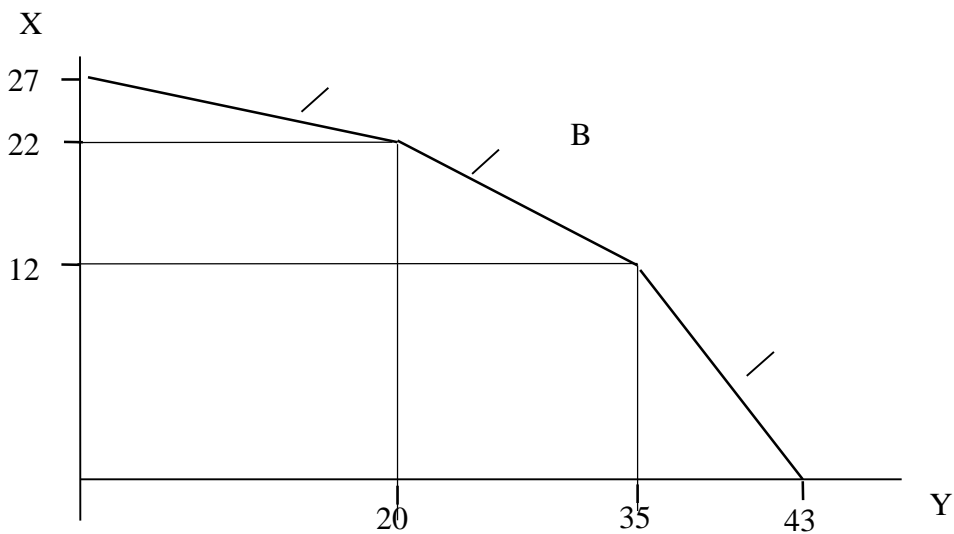
8. (15)

A, B C

X Y.



:



: 12 = 8 ; 1 = 0,67

$$:10 =15 ;1 =1,5$$

$$:5 =20 ;1 =4 ,$$

..

() , , .

$$:12+10+5=27.$$

$$:20+15+8=43.$$

$$12, 10, 5 . .($$

)

: , , . .20, 15, 8.

. 2 .