$ClassName: \ Class\_01.2bp\text{-}41$ 

 $\begin{array}{ll} \text{BinSize: } \underline{\mathbf{10} \times \mathbf{10}} \\ \text{ReduceSize: } \underline{\mathbf{10} \times \mathbf{10}} \end{array}$ 

TypeNum: <u>63</u>
Num: <u>100</u>
OutS: <u>3100</u>
InS: <u>3040</u>
Rate: <u>0.981</u>
UB: <u>31</u>
LB0: <u>31</u>

LBWithCut:  $\underline{\bf 31}$ NodeCut:  $\underline{\bf 0}$ 

LB: **31** 

ExtendedNodeCnt:  $\underline{\mathbf{1}}$ 

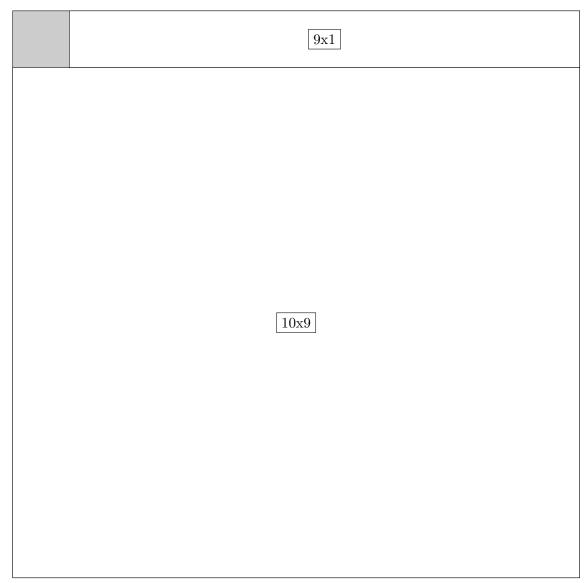
GenNodeCnt:  $\underline{\mathbf{1}}$ PrimalNode:  $\underline{\mathbf{0}}$ ColumnCount:  $\underline{\mathbf{31}}$ TotalCutCount:  $\underline{\mathbf{0}}$ RootCutCount:  $\underline{\mathbf{0}}$ LPSolverCnt:  $\underline{\mathbf{1}}$ PricingSolverCnt:  $\underline{\mathbf{0}}$ BranchAndBoundNum:  $\underline{\mathbf{1}}$ 

isOpt:  $\underline{\mathbf{true}}$ 

 $\begin{array}{ll} {\rm TimeOnInitSolution:} \ \underline{0.170 \ s} \\ {\rm TimeOnPrimal:} \ \underline{0.000 \ s} \\ {\rm TimeOnPricing:} \ \underline{0.000 \ s} \\ {\rm TimeOnRmp:} \ \underline{0.079 \ s} \\ {\rm TotalTime:} \ \underline{0.311 \ s} \end{array}$ 



 $\mathbf{w}$  =10 , h =10 , x =0 , y =0 , v =100





w =9, h =10, x =0, y =0, v =90 w =1, h =10, x =9, y =0, v =10

2x1	8x1	
	9x9	1x9

$$\mathbf{w}$$
 =9 , h =9 , x =0 , y =0 , v =81

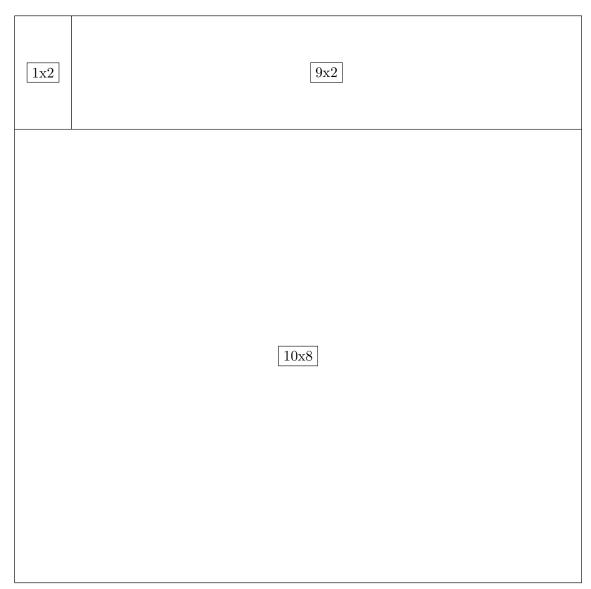
$$\mathbf{w}$$
 =1 , h =9 , x =9 , y =0 , v =9

$$w = 8$$
,  $h = 1$ ,  $x = 2$ ,  $y = 9$ ,  $v = 8$ 

$$\mathbf{w}$$
 =2 , h =1 , x =0 , y =9 , v =2







 $\begin{array}{l} w = & 10 \ , \ h = & 8 \ , \ x = & 0 \ , \ y = & 0 \ , \ v = & 80 \\ w = & 9 \ , \ h = & 2 \ , \ x = & 1 \ , \ y = & 8 \ , \ v = & 18 \\ w = & 1 \ , \ h = & 2 \ , \ x = & 0 \ , \ y = & 8 \ , \ v = & 2 \end{array}$ 

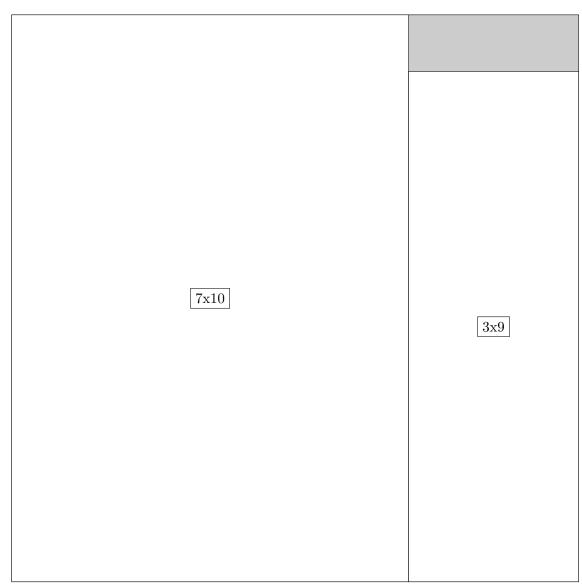




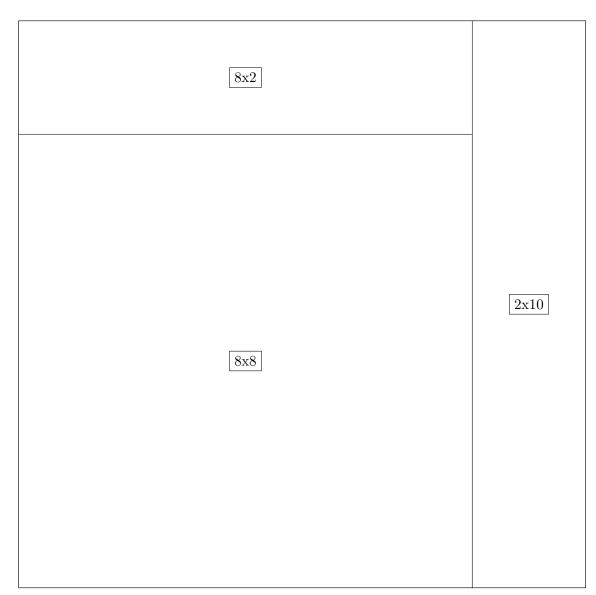


1x1 1x2	9x3
	[10x7]

$$\begin{array}{l} w = \! 10 \; , \; h = \! 7 \; , \; x = \! 0 \; , \; y = \! 0 \; , \; v = \! 70 \\ w = \! 9 \; , \; h = \! 3 \; , \; x = \! 1 \; , \; y = \! 7 \; , \; v = \! 27 \\ w = \! 1 \; , \; h = \! 2 \; , \; x = \! 0 \; , \; y = \! 7 \; , \; v = \! 2 \\ w = \! 1 \; , \; h = \! 1 \; , \; x = \! 0 \; , \; y = \! 9 \; , \; v = \! 1 \end{array}$$

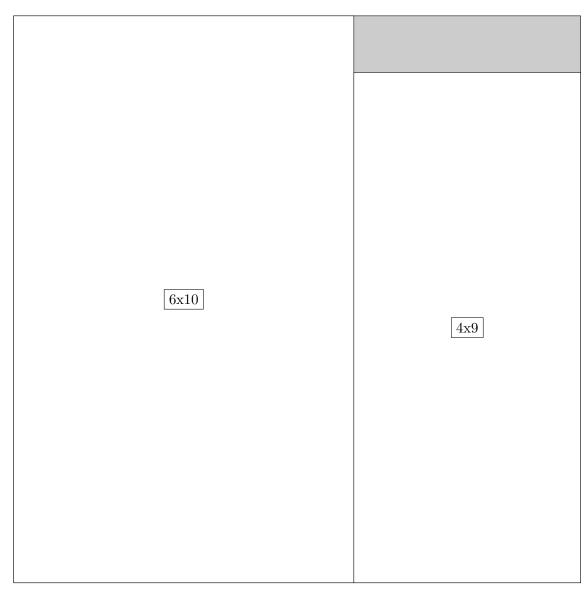


w = 7, h = 10, x = 0, y = 0, v = 70 w = 3, h = 9, x = 7, y = 0, v = 27

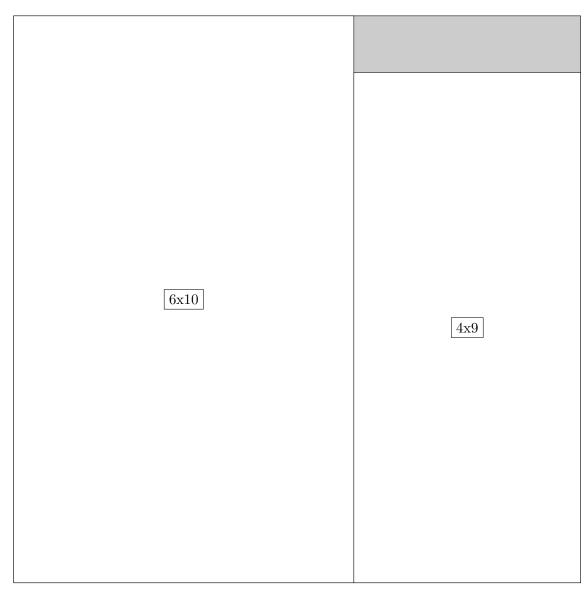


$$\begin{array}{l} w = 8 \;,\; h = 8 \;,\; x = 0 \;,\; y = 0 \;,\; v = 64 \\ w = 2 \;,\; h = 10 \;,\; x = 8 \;,\; y = 0 \;,\; v = 20 \end{array}$$

$$\mathbf{w}$$
 =8 , h =2 , x =0 , y =8 , v =16



w =6, h =10, x =0, y =0, v =60 w =4, h =9, x =6, y =0, v =36



w =6, h =10, x =0, y =0, v =60 w =4, h =9, x =6, y =0, v =36

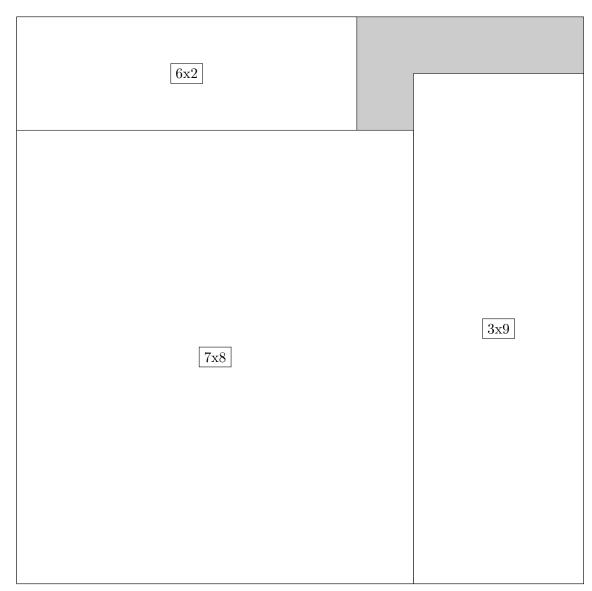
8x3	[2x2]
8x7	2x8

$$w = 8$$
,  $h = 7$ ,  $x = 0$ ,  $y = 0$ ,  $v = 56$ 

$$\mathbf{w}$$
 =8 , h =3 , x =0 , y =7 , v =24

$$\mathbf{w}$$
 =2 , h =8 , x =8 , y =0 , v =  
16

$$\mathbf{w}$$
 =2 , h =2 , x =8 , y =8 , v =4



$$\begin{array}{l} w = 7 \ , \ h = 8 \ , \ x = 0 \ , \ y = 0 \ , \ v = 56 \\ w = 3 \ , \ h = 9 \ , \ x = 7 \ , \ y = 0 \ , \ v = 27 \\ w = 6 \ , \ h = 2 \ , \ x = 0 \ , \ y = 8 \ , \ v = 12 \end{array}$$

2x3		8x3	
	7x7		3x7

$$\mathbf{w}$$
 =7 , h =7 , x =0 , y =0 , v =49

$$\mathbf{w}$$
 =8 , h =3 , x =2 , y =7 , v =24

$$\le =3$$
 , h =7 , x =7 , y =0 , v =  
21

$$\mathbf{w}$$
 =2 , h =3 , x =0 , y =7 , v =6

$10\mathrm{x}4$	
8x6	2x6

$$\begin{array}{l} w = 8 \;,\; h = 6 \;,\; x = 0 \;,\; y = 0 \;,\; v = 48 \\ w = 10 \;,\; h = 4 \;,\; x = 0 \;,\; y = 6 \;,\; v = 40 \\ w = 2 \;,\; h = 6 \;,\; x = 8 \;,\; y = 0 \;,\; v = 12 \end{array}$$

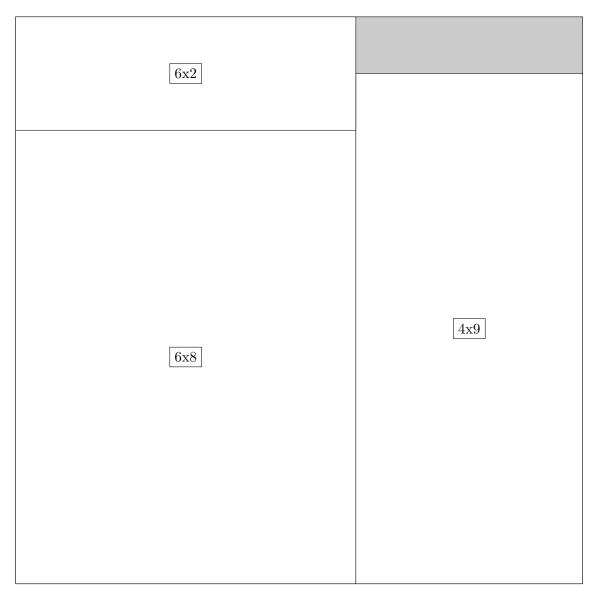
	9x2		
6x8		4x8	
	6x8		

$$w = 6$$
,  $h = 8$ ,  $x = 0$ ,  $y = 0$ ,  $v = 48$ 

$$w = 4$$
,  $h = 8$ ,  $x = 6$ ,  $y = 0$ ,  $v = 32$ 

$$\mathbf{w}$$
 =9 , h =2 , x =1 , y =8 , v =18

$$\mathbf{w}$$
 =1 , h =2 , x =0 , y =8 , v =2



 $\mathbf{w}$  =6 , h =8 , x =0 , y =0 , v =48 w =4 , h =9 , x =6 , y =0 , v =36 w =6 , h =2 , x =0 , y =8 , v =12

2x1			
2x2	[8x3]		
	6x7		 4x7

$$w = 6$$
,  $h = 7$ ,  $x = 0$ ,  $y = 0$ ,  $v = 42$ 

$$\mathbf{w}$$
 =4 , h =7 , x =6 , y =0 , v =28

$$\begin{array}{l} w = 8 \ , \ h = 3 \ , \ x = 2 \ , \ y = 7 \ , \ v = 24 \\ w = 2 \ , \ h = 2 \ , \ x = 0 \ , \ y = 7 \ , \ v = 4 \end{array}$$

$$w = 2$$
,  $h = 2$ ,  $x = 0$ ,  $y = 7$ ,  $v = 4$ 

$$w = 2$$
,  $h = 1$ ,  $x = 0$ ,  $y = 9$ ,  $v = 2$ 

4x3	6x2		
	5x1		
6x7		3x7	1x8

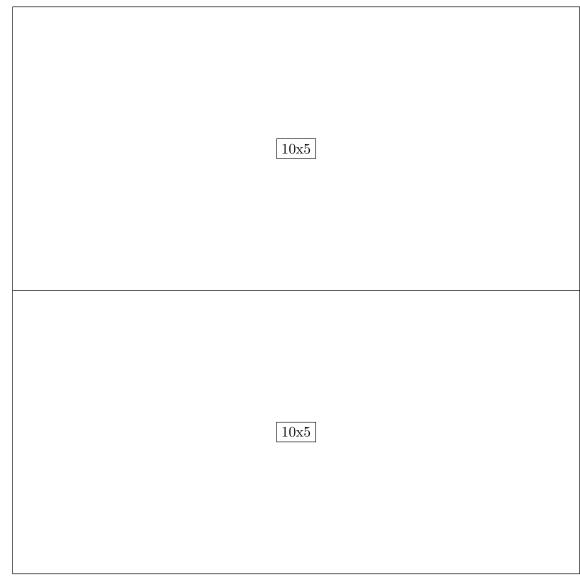
$$\mathbf{w}$$
 =6 ,  $\mathbf{h}$  =7 ,  $\mathbf{x}$  =0 ,  $\mathbf{y}$  =0 ,  $\mathbf{v}$  =42

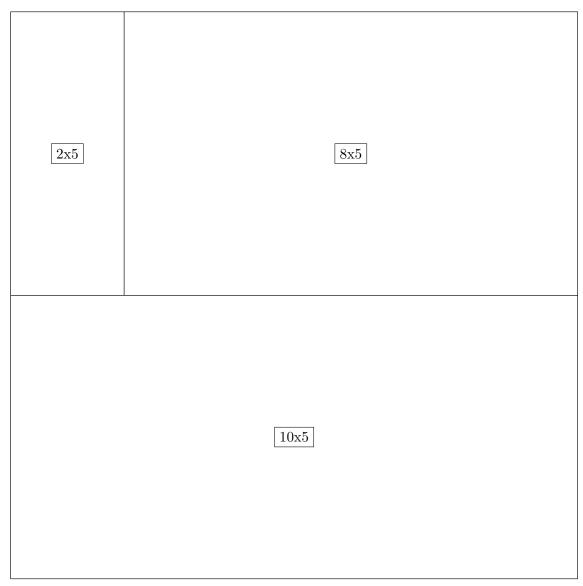
$$\begin{array}{l} w = \! 3 \ , \ h = \! 7 \ , \ x = \! 6 \ , \ y = \! 0 \ , \ v = \! 21 \\ w = \! 6 \ , \ h = \! 2 \ , \ x = \! 4 \ , \ y = \! 8 \ , \ v = \! 12 \end{array}$$

$$w = 4$$
,  $h = 3$ ,  $x = 0$ ,  $y = 7$ ,  $v = 12$ 

$$\mathbf{w}$$
 =1 , h =8 , x =9 , y =0 , v =8

$$\mathbf{w}$$
 =5 , h =1 , x =4 , y =7 , v =5





 $\begin{array}{l} w = & 10 \ , \ h = & 5 \ , \ x = & 0 \ , \ y = & 0 \ , \ v = & 50 \\ w = & 8 \ , \ h = & 5 \ , \ x = & 2 \ , \ y = & 5 \ , \ v = & 40 \\ w = & 2 \ , \ h = & 5 \ , \ x = & 0 \ , \ y = & 5 \ , \ v = & 10 \end{array}$ 

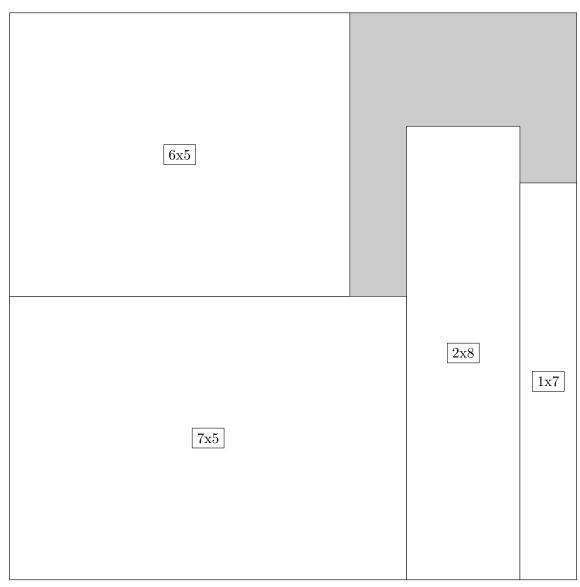
	2x2	3x2
5x9		[5x8]

$$\mathbf{w}$$
 =5 , h =9 , x =0 , y =0 , v =45

$$\mathbf{w}$$
 =5 , h =8 , x =5 , y =0 , v =40

$$\le 3$$
 , h =  
2 , x =  
7 , y =  
8 , v =  
6

$$\mathbf{w}$$
 =2 , h =2 , x =5 , y =8 , v =4



$$\mathbf{w}$$
 =7 ,  $\mathbf{h}$  =5 ,  $\mathbf{x}$  =0 ,  $\mathbf{y}$  =0 ,  $\mathbf{v}$  =35

$$\mathbf{w}$$
 =6 , h =5 , x =0 , y =5 , v =30

$$\mathbf{w}$$
 =2 , h =8 , x =7 , y =0 , v =  
16

$$\mathbf{w}$$
 =1 , h =7 , x =9 , y =0 , v =7

2x6	3x6	5x6	
	8x4		2x4

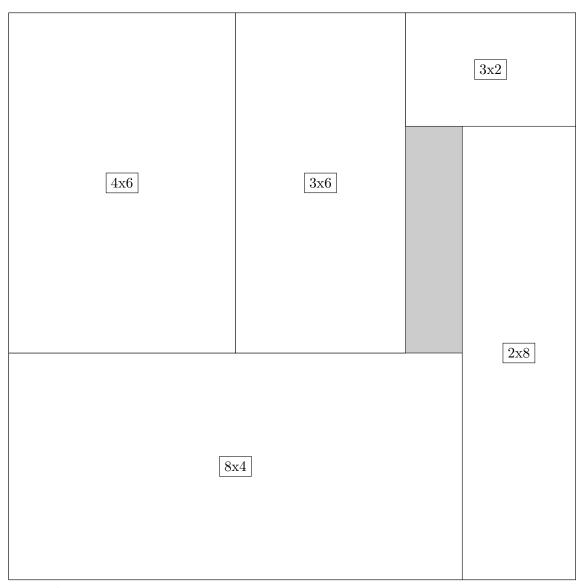
$$\mathbf{w}$$
 =8 , h =4 , x =0 , y =0 , v =32

$$w=\!5$$
 ,  $h=\!6$  ,  $x=\!5$  ,  $y=\!4$  ,  $v=\!30$ 

$$w = 3$$
,  $h = 6$ ,  $x = 2$ ,  $y = 4$ ,  $v = 18$ 

$$\mathbf{w}$$
 =2 , h =6 , x =0 , y =4 , v =12

$$w = 2$$
,  $h = 4$ ,  $x = 8$ ,  $y = 0$ ,  $v = 8$ 



$$\le =8$$
 , h =4 , x =0 , y =0 , v =32

$$\mathbf{w}$$
 =4 , h =6 , x =0 , y =4 , v =24

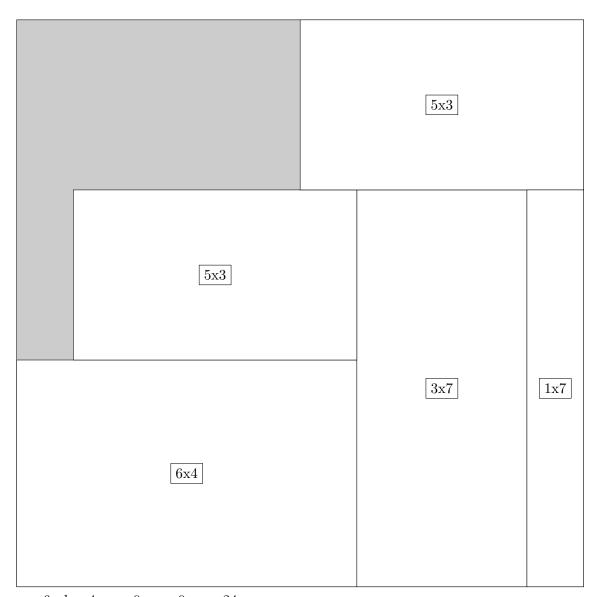
$$w = 3$$
,  $h = 6$ ,  $x = 4$ ,  $y = 4$ ,  $v = 18$ 

$$\le = 2$$
 , h =  
8 , x =  
8 , y =  
0 , v =  
16

$$w = 3$$
,  $h = 2$ ,  $x = 7$ ,  $y = 8$ ,  $v = 6$ 

3x5	3x5	4x5
5x5		5x5

 $\begin{array}{l} w=5 \ , \ h=5 \ , \ x=0 \ , \ y=0 \ , \ v=25 \\ w=5 \ , \ h=5 \ , \ x=5 \ , \ y=0 \ , \ v=25 \\ w=4 \ , \ h=5 \ , \ x=6 \ , \ y=5 \ , \ v=20 \\ w=3 \ , \ h=5 \ , \ x=3 \ , \ y=5 \ , \ v=15 \\ w=3 \ , \ h=5 \ , \ x=0 \ , \ y=5 \ , \ v=15 \end{array}$ 



$$\begin{array}{l} w = 3 \ , \ h = 7 \ , \ x = 6 \ , \ y = 0 \ , \ v = 21 \\ w = 5 \ , \ h = 3 \ , \ x = 1 \ , \ y = 4 \ , \ v = 15 \end{array}$$

$$w = 5$$
,  $h = 3$ ,  $x = 5$ ,  $y = 7$ ,  $v = 15$ 

$$\mathbf{w}=\!1$$
 ,  $\mathbf{h}=\!7$  ,  $\mathbf{x}=\!9$  ,  $\mathbf{y}=\!0$  ,  $\mathbf{v}=\!7$