$ClassName: \ Class\_01.2bp\text{-}45$ 

BinSize:  $\underline{10} \times \underline{10}$ ReduceSize:  $\underline{10} \times \underline{10}$ 

TypeNum: <u>66</u>
Num: <u>100</u>
OutS: <u>3700</u>
InS: <u>3378</u>
Rate: <u>0.913</u>
UB: <u>37</u>
LB0: <u>37</u>
LB: <u>37</u>

LBWithCut:  $\underline{37}$ NodeCut:  $\underline{0}$ 

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

GenNodeCnt: 1
PrimalNode: 0
ColumnCount: 37
TotalCutCount: 0
RootCutCount: 0
LPSolverCnt: 1
PricingSolverCnt: 0
Branch And Bound Nu

Branch And<br/>Bound Num:  $\underline{\mathbf{1}}$ 

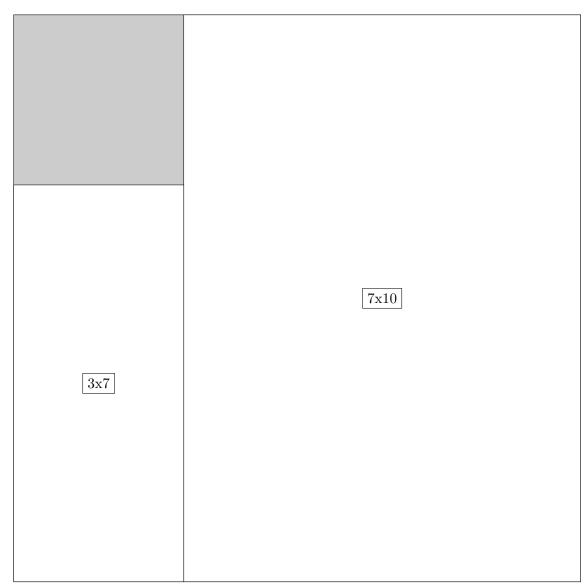
is Opt:  $\underline{\mathbf{true}}$ 

TimeOnInitSolution:  $\underline{600.000 \text{ s}}$ 

TimeOnPrimal: 0.000 sTimeOnPricing: 0.000 sTimeOnRmp: 0.078 sTotalTime: 600.359 s



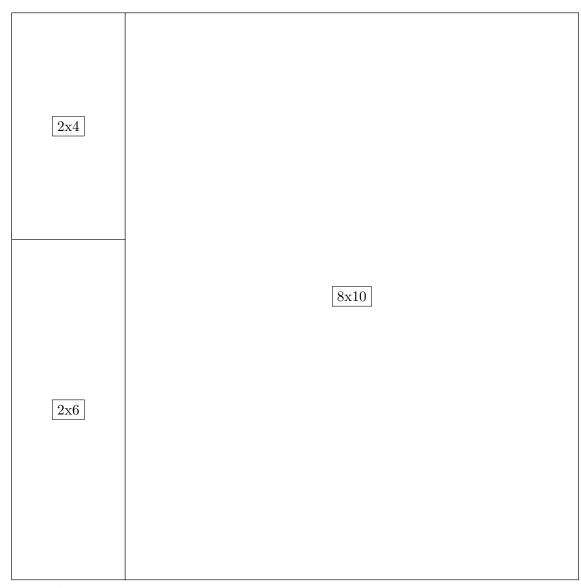
w = 10, h = 8, x = 0, y = 0, v = 80



w =7, h =10, x =3, y =0, v =70 w =3, h =7, x =0, y =0, v =21



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



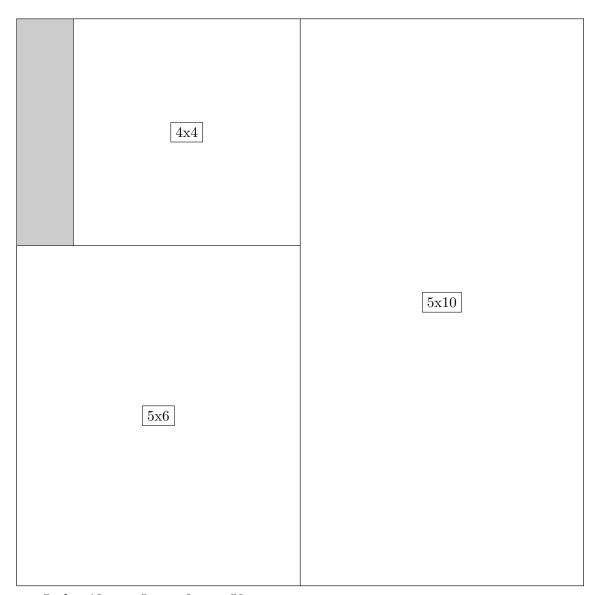
$$\le =8$$
 ,  $h$  =10 ,  $x$  =2 ,  $y$  =0 ,  $v$  =80

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

$$w = 2$$
 ,  $h = 4$  ,  $x = 0$  ,  $y = 6$  ,  $v = 8$ 

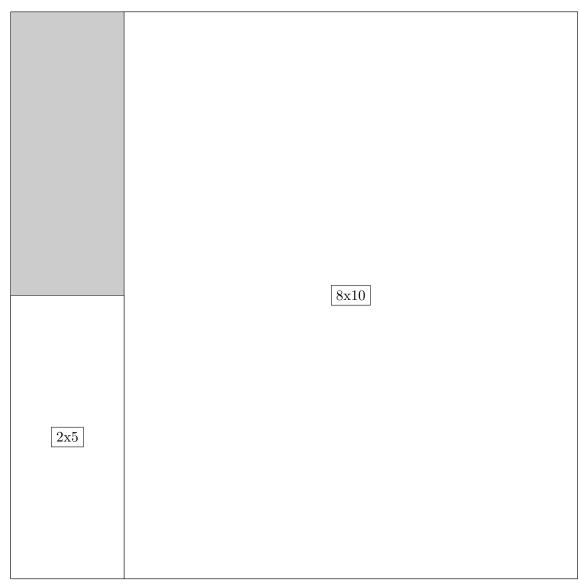


w = 10, h = 8, x = 0, y = 0, v = 80



$$w = 5$$
,  $h = 10$ ,  $x = 5$ ,  $y = 0$ ,  $v = 50$ 

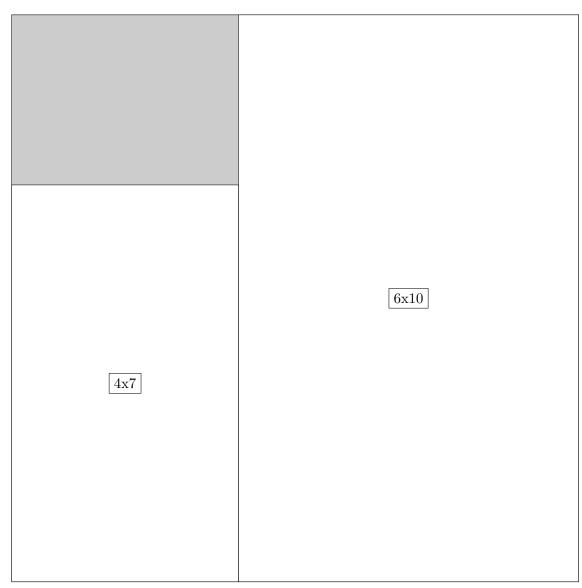
$$\begin{array}{l} w = 5 \ , \ h = 6 \ , \ x = 0 \ , \ y = 0 \ , \ v = 30 \\ w = 4 \ , \ h = 4 \ , \ x = 1 \ , \ y = 6 \ , \ v = 16 \end{array}$$



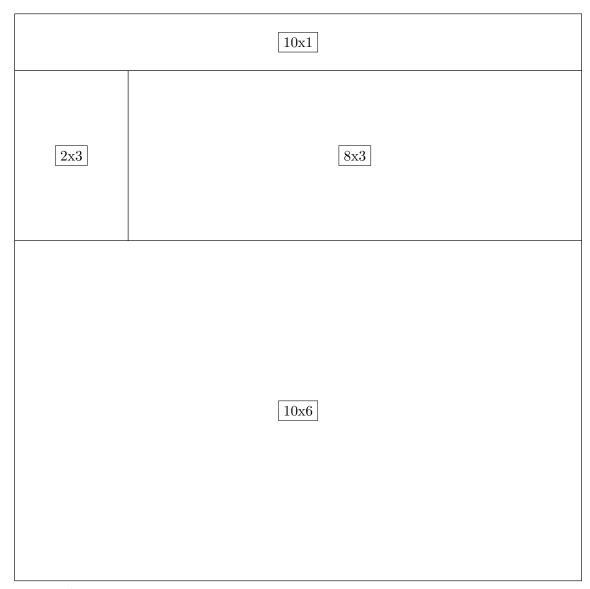
w =8, h =10, x =2, y =0, v =80 w =2, h =5, x =0, y =0, v =10



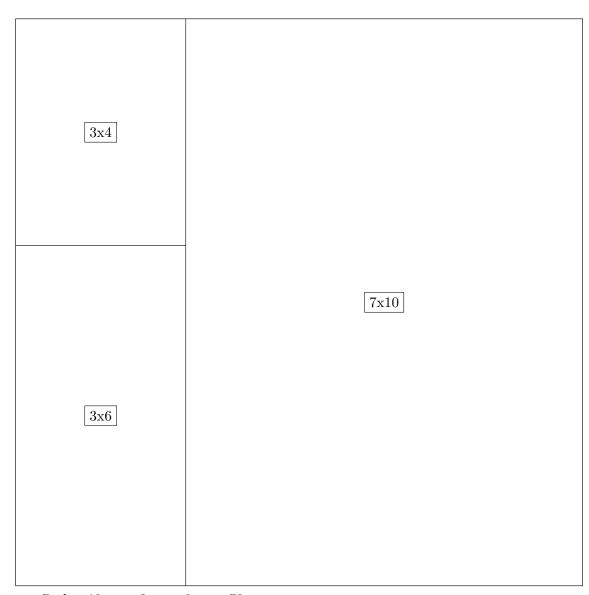
w = 10, h = 8, x = 0, y = 0, v = 80



w =6, h =10, x =4, y =0, v =60 w =4, h =7, x =0, y =0, v =28



$$\begin{array}{l} w = \! 10 \; , \; h = \! 6 \; , \; x = \! 0 \; , \; y = \! 0 \; , \; v = \! 60 \\ w = \! 8 \; , \; h = \! 3 \; , \; x = \! 2 \; , \; y = \! 6 \; , \; v = \! 24 \\ w = \! 2 \; , \; h = \! 3 \; , \; x = \! 0 \; , \; y = \! 6 \; , \; v = \! 6 \\ w = \! 10 \; , \; h = \! 1 \; , \; x = \! 0 \; , \; y = \! 9 \; , \; v = \! 10 \end{array}$$

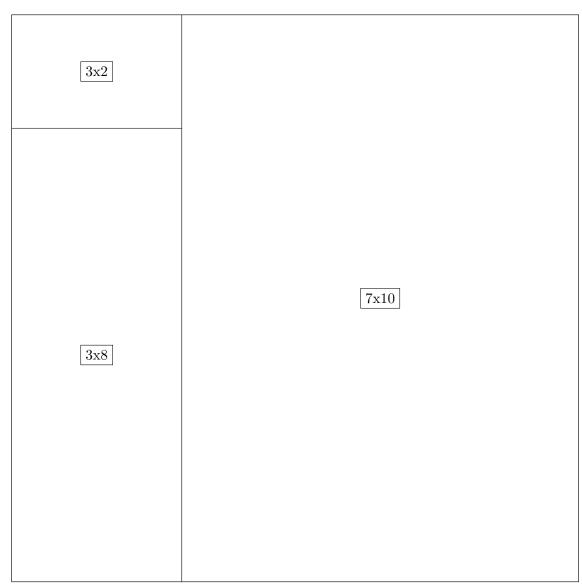


$$\begin{array}{l} w = 7 \ , \ h = \! 10 \ , \ x = \! 3 \ , \ y = \! 0 \ , \ v = \! 70 \\ w = \! 3 \ , \ h = \! 6 \ , \ x = \! 0 \ , \ y = \! 0 \ , \ v = \! 18 \end{array}$$

 $\mathbf{w}$  =3 , h =4 , x =0 , y =6 , v =12

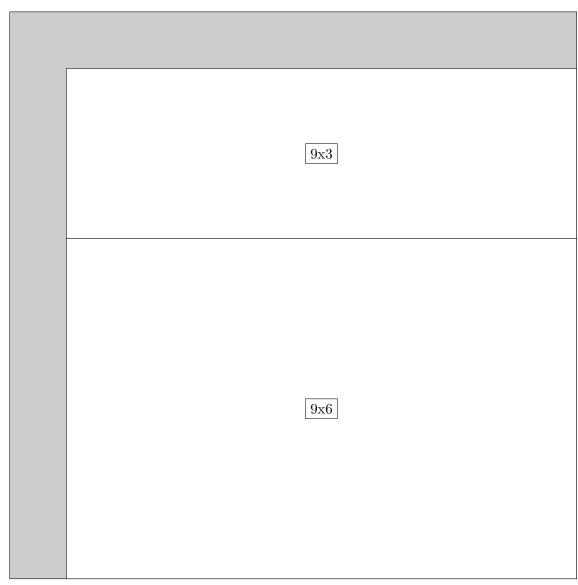
4x10	6x10

w =6, h =10, x =4, y =0, v =60 w =4, h =10, x =0, y =0, v =40



$$\begin{array}{l} w = 7 \ , \ h = \! 10 \ , \ x = \! 3 \ , \ y = \! 0 \ , \ v = \! 70 \\ w = \! 3 \ , \ h = \! 8 \ , \ x = \! 0 \ , \ y = \! 0 \ , \ v = \! 24 \\ w = \! 3 \ , \ h = \! 2 \ , \ x = \! 0 \ , \ y = \! 8 \ , \ v = \! 6 \end{array}$$





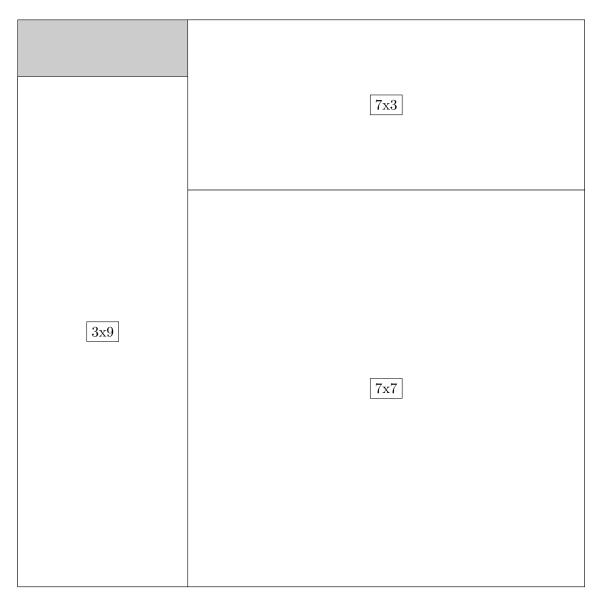
$$\begin{array}{c} w = 9 \ , \ h = 6 \ , \ x = 1 \ , \ y = 0 \ , \ v = 54 \\ w = 9 \ , \ h = 3 \ , \ x = 1 \ , \ y = 6 \ , \ v = 27 \end{array}$$

	9x6	
4x4		6x4

 $\begin{array}{l} w=6 \ , \, h=4 \ , \, x=4 \ , \, y=0 \ , \, v=24 \\ w=4 \ , \, h=4 \ , \, x=0 \ , \, y=0 \ , \, v=16 \\ w=9 \ , \, h=6 \ , \, x=1 \ , \, y=4 \ , \, v=54 \end{array}$ 

	7x1
1x3	9x3
3x6	7x6

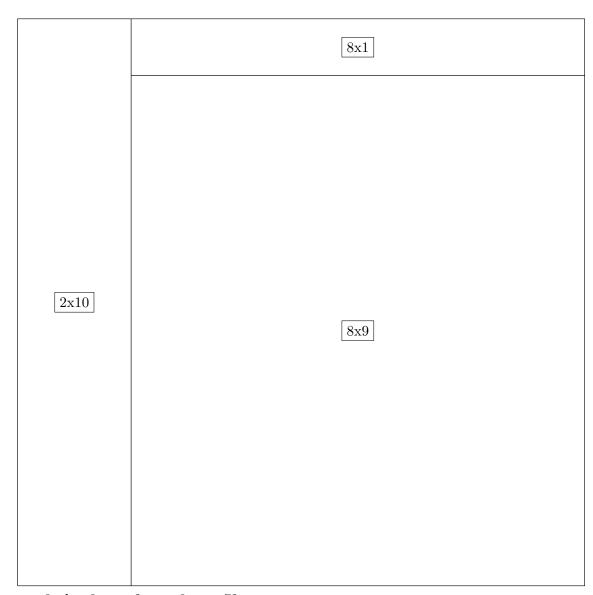
$$\begin{array}{l} w=7\ ,\, h=6\ ,\, x=3\ ,\, y=0\ ,\, v=42\\ w=3\ ,\, h=6\ ,\, x=0\ ,\, y=0\ ,\, v=18\\ w=9\ ,\, h=3\ ,\, x=1\ ,\, y=6\ ,\, v=27\\ w=1\ ,\, h=3\ ,\, x=0\ ,\, y=6\ ,\, v=3\\ w=7\ ,\, h=1\ ,\, x=3\ ,\, y=9\ ,\, v=7\\ \end{array}$$



$$w = 7$$
,  $h = 7$ ,  $x = 3$ ,  $y = 0$ ,  $v = 49$ 

$$\mathbf{w}$$
 =7 , h =3 , x =3 , y =7 , v =21

$$\mathbf{w}$$
 =3 , h =9 , x =0 , y =0 , v =27



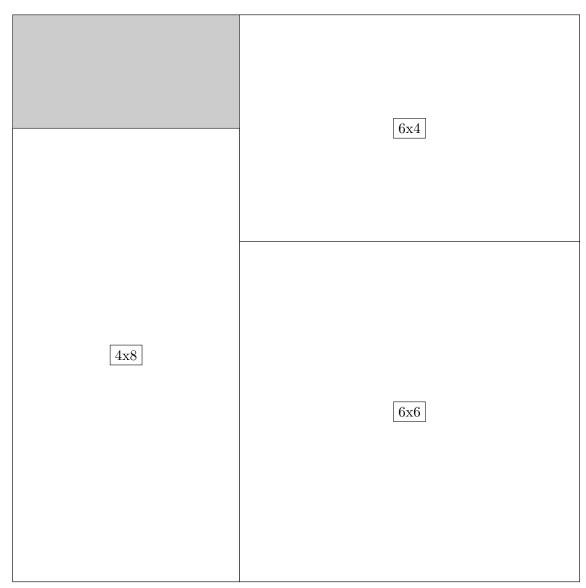
 $\begin{array}{l} w = 8 \ , \ h = 9 \ , \ x = 2 \ , \ y = 0 \ , \ v = 72 \\ w = 8 \ , \ h = 1 \ , \ x = 2 \ , \ y = 9 \ , \ v = 8 \\ w = 2 \ , \ h = 10 \ , \ x = 0 \ , \ y = 0 \ , \ v = 20 \end{array}$ 

2x1	7x1
3x9	7x9

$$\begin{array}{l} w = 7 \ , \ h = 9 \ , \ x = 3 \ , \ y = 0 \ , \ v = 63 \\ w = 7 \ , \ h = 1 \ , \ x = 3 \ , \ y = 9 \ , \ v = 7 \end{array}$$

$$w = 7$$
,  $h = 1$ ,  $x = 9$ ,  $y = 9$ ,  $v = 7$   
 $w = 3$ ,  $h = 9$ ,  $x = 0$ ,  $y = 0$ ,  $v = 27$ 

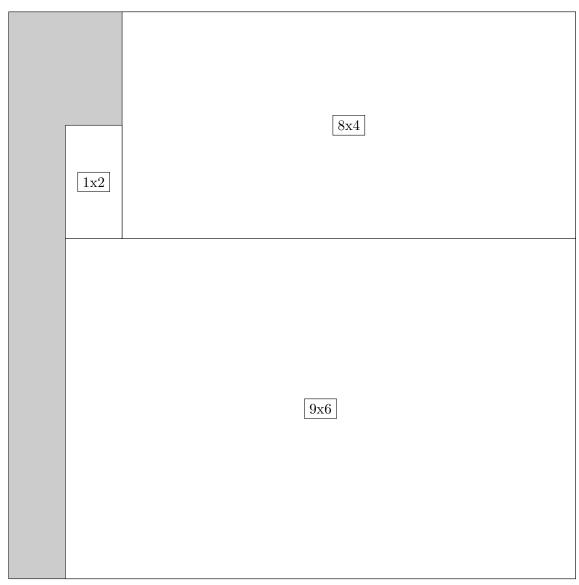
$$\mathbf{w}$$
 =2 , h =1 , x =1 , y =9 , v =2



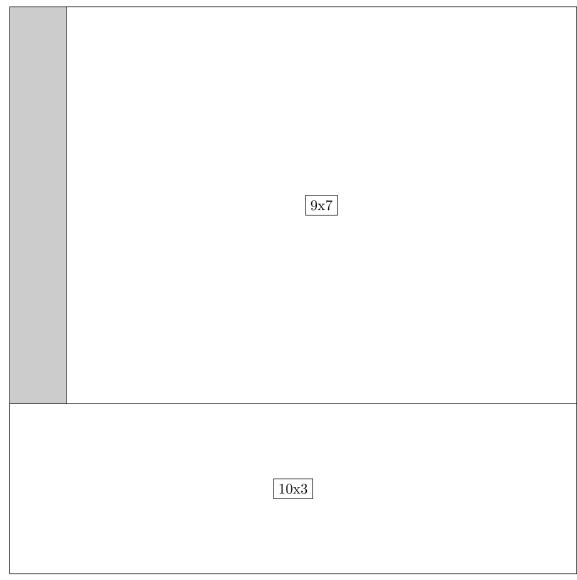
 $\begin{array}{l} w=6 \ , \ h=6 \ , \ x=4 \ , \ y=0 \ , \ v=36 \\ w=6 \ , \ h=4 \ , \ x=4 \ , \ y=6 \ , \ v=24 \\ w=4 \ , \ h=8 \ , \ x=0 \ , \ y=0 \ , \ v=32 \end{array}$ 

4x3	
4x6	6x9

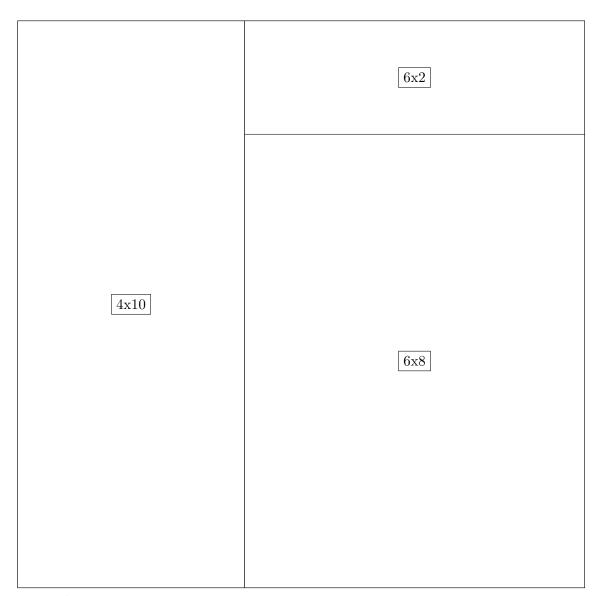
$$\begin{array}{l} w = 6 \ , \ h = 9 \ , \ x = 4 \ , \ y = 0 \ , \ v = 54 \\ w = 4 \ , \ h = 6 \ , \ x = 0 \ , \ y = 0 \ , \ v = 24 \\ w = 4 \ , \ h = 3 \ , \ x = 0 \ , \ y = 6 \ , \ v = 12 \end{array}$$



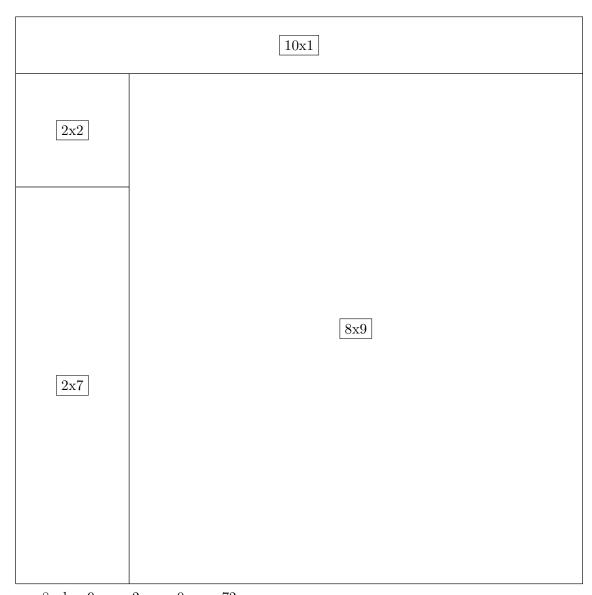
 $\begin{array}{l} w = 9 \ , \ h = 6 \ , \ x = 1 \ , \ y = 0 \ , \ v = 54 \\ w = 8 \ , \ h = 4 \ , \ x = 2 \ , \ y = 6 \ , \ v = 32 \\ w = 1 \ , \ h = 2 \ , \ x = 1 \ , \ y = 6 \ , \ v = 2 \end{array}$ 



$$\begin{array}{l} w = & 10 \ , \ h = & 3 \ , \ x = & 0 \ , \ y = & 0 \ , \ v = & 30 \\ w = & 9 \ , \ h = & 7 \ , \ x = & 1 \ , \ y = & 3 \ , \ v = & 63 \end{array}$$

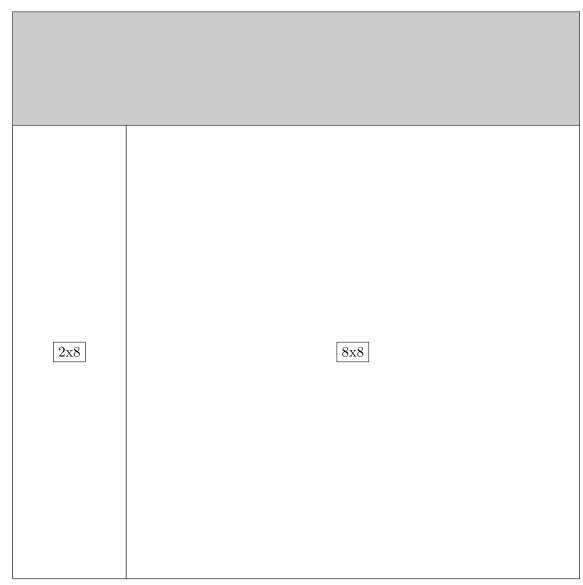


 $\begin{array}{l} w=6 \ , \ h=8 \ , \ x=4 \ , \ y=0 \ , \ v=48 \\ w=6 \ , \ h=2 \ , \ x=4 \ , \ y=8 \ , \ v=12 \\ w=4 \ , \ h=10 \ , \ x=0 \ , \ y=0 \ , \ v=40 \end{array}$ 



$$\begin{array}{l} w = 8 \; , \; h = 9 \; , \; x = 2 \; , \; y = 0 \; , \; v = 72 \\ w = 2 \; , \; h = 7 \; , \; x = 0 \; , \; y = 0 \; , \; v = 14 \\ w = 2 \; , \; h = 2 \; , \; x = 0 \; , \; y = 7 \; , \; v = 4 \end{array}$$

 $\mathbf{w}$  =10 , h =1 , x =0 , y =9 , v =10



1x5	$9\mathrm{x}5$
4x5	$6\mathrm{x}5$

$$w = 6$$
,  $h = 5$ ,  $x = 4$ ,  $y = 0$ ,  $v = 30$ 

$$\le=4$$
 , h =5 , x =0 , y =0 , v =20

$$w$$
 =9 , h =5 , x =1 , y =5 , v =45

$$\mathbf{w}$$
 =1 , h =5 , x =0 , y =5 , v =5

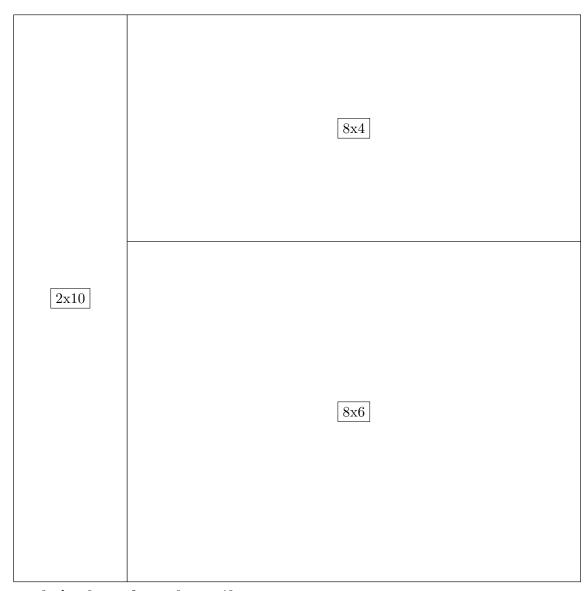
	7x4	2x4
8	x6	2x6

$$w = 2$$
,  $h = 6$ ,  $x = 8$ ,  $y = 0$ ,  $v = 12$ 

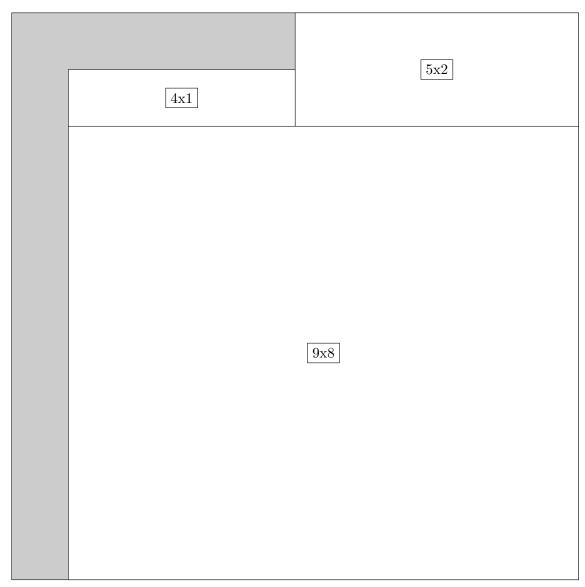
$$w = 8$$
,  $h = 6$ ,  $x = 0$ ,  $y = 0$ ,  $v = 48$ 

$$\mathbf{w}$$
 =7 , h =4 , x =1 , y =6 , v =28

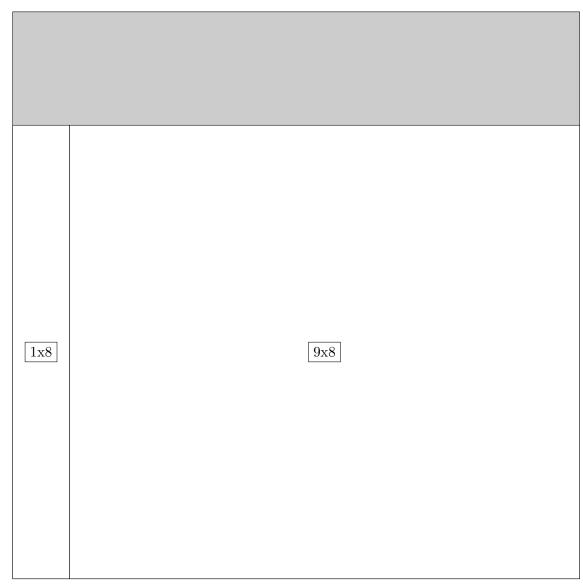
 $<sup>\</sup>mathbf{w}$  =2 , h =4 , x =8 , y =6 , v =8



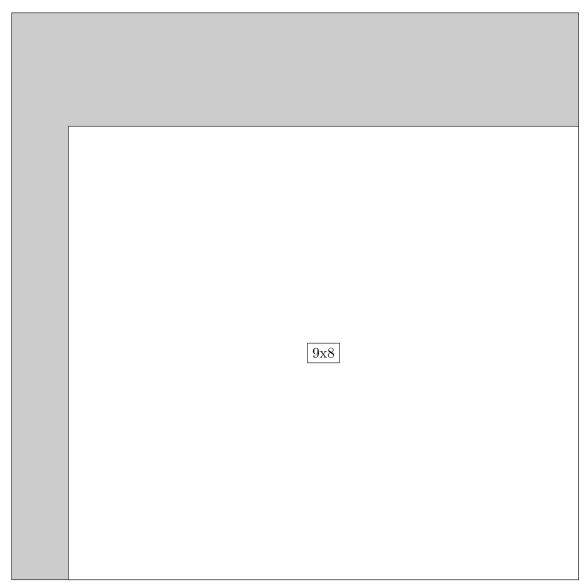
$$\begin{array}{l} w = 8 \ , \ h = 6 \ , \ x = 2 \ , \ y = 0 \ , \ v = 48 \\ w = 8 \ , \ h = 4 \ , \ x = 2 \ , \ y = 6 \ , \ v = 32 \\ w = 2 \ , \ h = 10 \ , \ x = 0 \ , \ y = 0 \ , \ v = 20 \end{array}$$



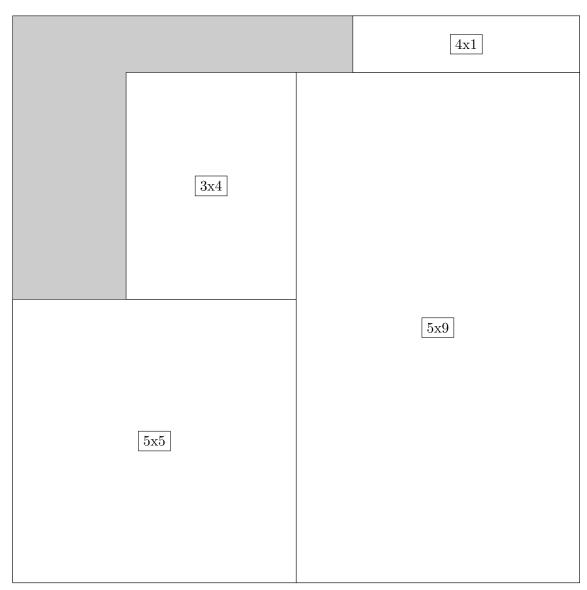
$$\begin{array}{l} w = 9 \ , \ h = 8 \ , \ x = 1 \ , \ y = 0 \ , \ v = 72 \\ w = 5 \ , \ h = 2 \ , \ x = 5 \ , \ y = 8 \ , \ v = 10 \\ w = 4 \ , \ h = 1 \ , \ x = 1 \ , \ y = 8 \ , \ v = 4 \end{array}$$



w =9, h =8, x =1, y =0, v =72 w =1, h =8, x =0, y =0, v =8



 $\mathbf{w}$  =9 , h =8 , x =1 , y =0 , v =72



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

 $\mathbf{w}$  =4 , h =1 , x =6 , y =9 , v =4

 $\le =5$  , h =5 , x =0 , y =0 , v = 25

 $\mathbf{w}$  =3 , h =4 , x =2 , y =5 , v =12

5x5	5x5
4x5	6x5

$$\begin{array}{c} w = 6 \ , \, h = 5 \ , \, x = 4 \ , \, y = 0 \ , \, v = 30 \\ w = 4 \ , \, h = 5 \ , \, x = 0 \ , \, y = 0 \ , \, v = 20 \end{array}$$

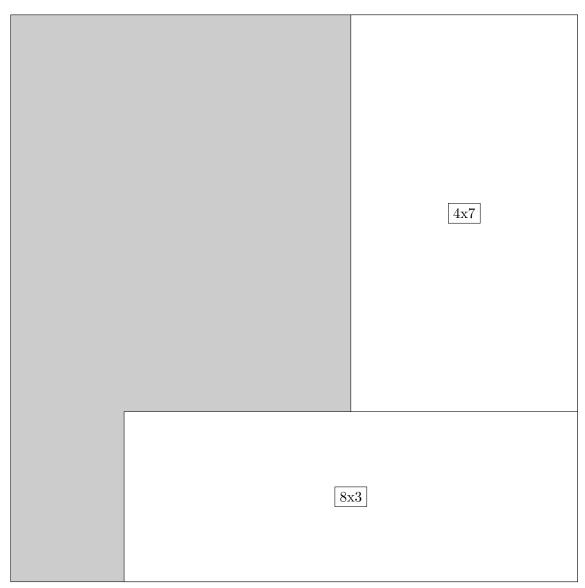
$$w$$
 =5 , h =5 , x =5 , y =5 , v =25

$$\mathbf{w}$$
 =5 , h =5 , x =0 , y =5 , v =25

2x9	4x9	4x9

 $\begin{array}{l} w = 4 \ , \ h = 9 \ , \ x = 6 \ , \ y = 0 \ , \ v = 36 \\ w = 4 \ , \ h = 9 \ , \ x = 2 \ , \ y = 0 \ , \ v = 36 \end{array}$ 

 $\mathbf{w}$  =2 , h =9 , x =0 , y =0 , v =18



$$\begin{array}{l} w = 8 \ , \ h = 3 \ , \ x = 2 \ , \ y = 0 \ , \ v = 24 \\ w = 4 \ , \ h = 7 \ , \ x = 6 \ , \ y = 3 \ , \ v = 28 \end{array}$$