${\bf ClassName:}~{\bf Class_01.2bp\text{-}23}$

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

TypeNum: <u>48</u> Num: <u>60</u> OutS: <u>2200</u> InS: <u>1823</u> Rate: <u>0.829</u> UB: <u>22</u> LB0: <u>22</u>

LBWithCut: $\underline{22}$ NodeCut: $\underline{0}$

LB: **22**

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

GenNodeCnt: $\underline{\mathbf{1}}$ PrimalNode: $\underline{\mathbf{0}}$ ColumnCount: $\underline{\mathbf{22}}$ TotalCutCount: $\underline{\mathbf{0}}$ RootCutCount: $\underline{\mathbf{0}}$ LPSolverCnt: $\underline{\mathbf{1}}$ PricingSolverCnt: $\underline{\mathbf{0}}$ BranchAndBoundNum: $\underline{\mathbf{1}}$

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

 $\begin{array}{ll} {\rm TimeOnInitSolution:} \ \underline{0.000 \ s} \\ {\rm TimeOnPrimal:} \ \underline{0.000 \ s} \\ {\rm TimeOnPricing:} \ \underline{0.000 \ s} \\ {\rm TimeOnRmp:} \ \underline{0.078 \ s} \\ {\rm TotalTime:} \ \underline{0.141 \ s} \\ \end{array}$



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



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



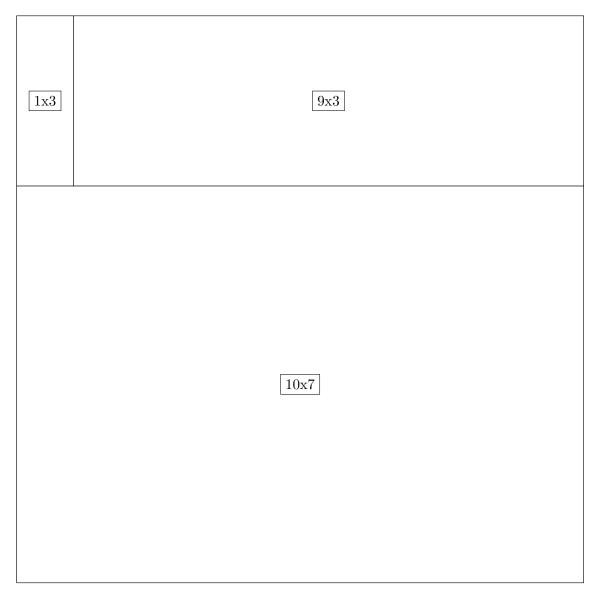
8x1	
	2x1
8x9	2x8

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

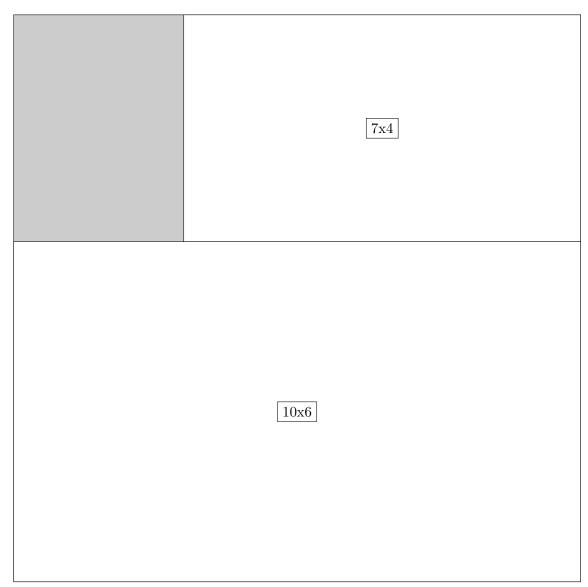
$$\le =2$$
 , h =8 , x =8 , y =0 , v =
16

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

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



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



w =10, h =6, x =0, y =0, v =60 w =7, h =4, x =3, y =6, v =28

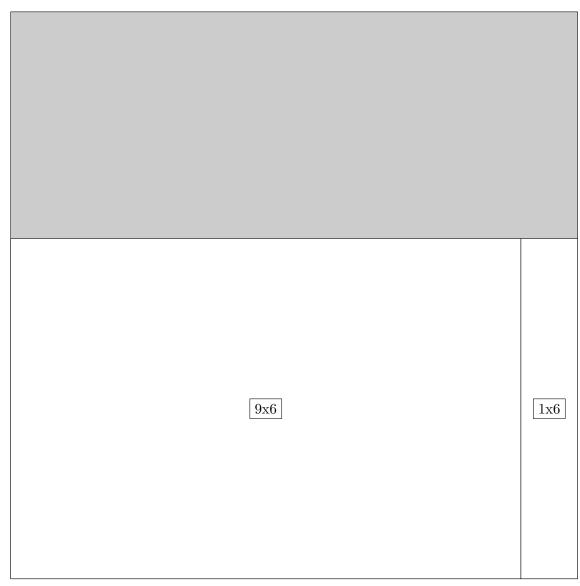
1x4	4x4		[5x4]	
10x6				

$$\begin{array}{l} w = 10 \; , \; h = 6 \; , \; x = 0 \; , \; y = 0 \; , \; v = 60 \\ w = 5 \; , \; h = 4 \; , \; x = 5 \; , \; y = 6 \; , \; v = 20 \\ w = 4 \; , \; h = 4 \; , \; x = 1 \; , \; y = 6 \; , \; v = 16 \\ w = 1 \; , \; h = 4 \; , \; x = 0 \; , \; y = 6 \; , \; v = 4 \end{array}$$

	8x3	
8x7		2x7

$$\begin{array}{l} w = 8 \ , \ h = 7 \ , \ x = 0 \ , \ y = 0 \ , \ v = 56 \\ w = 2 \ , \ h = 7 \ , \ x = 8 \ , \ y = 0 \ , \ v = 14 \end{array}$$

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



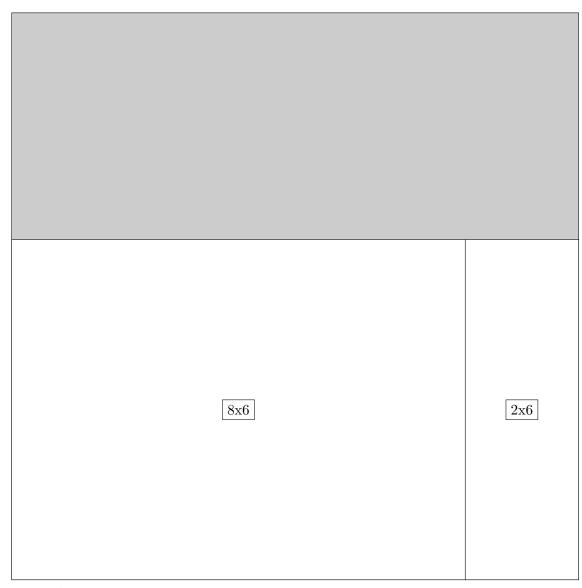
w =9, h =6, x =0, y =0, v =54 w =1, h =6, x =9, y =0, v =6

1x3	6x3	
	7x7	3x10

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

$$\mathbf{w}$$
 =3 , h =10 , x =7 , y =0 , v =30

$$\mathbf{w}$$
 =6 , h =3 , x =1 , y =7 , v =18



w =8, h =6, x =0, y =0, v =48 w =2, h =6, x =8, y =0, v =12

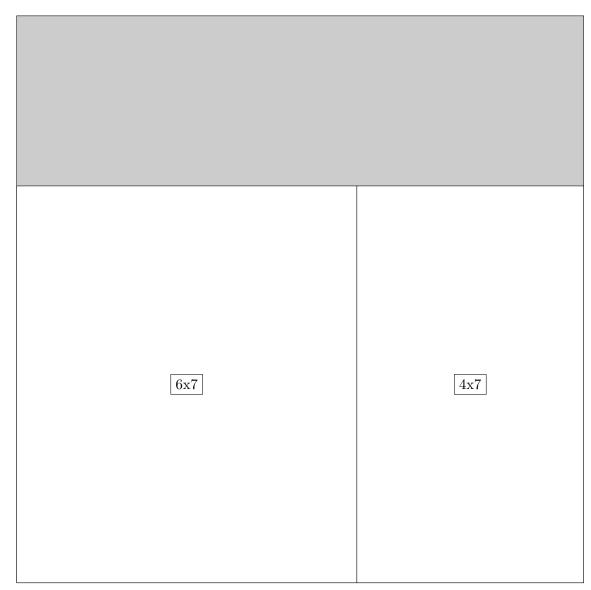
8x1 8x6	1x7	1x7

$$\le =8$$
 , h =6 , x =0 , y =0 , v =48

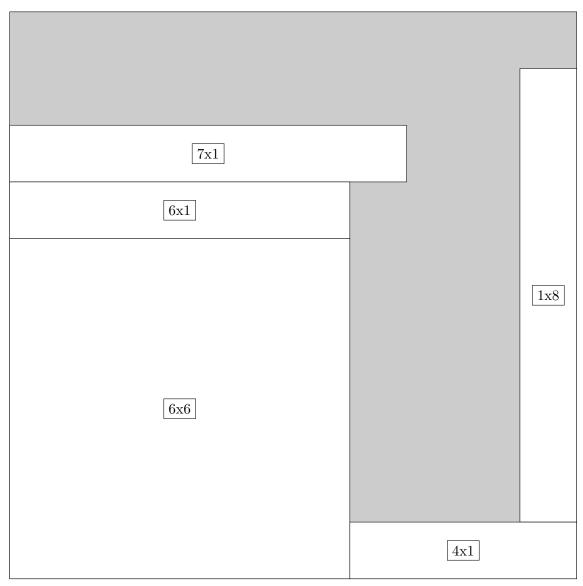
$$\mathbf{w}$$
 =8 , h =1 , x =0 , y =6 , v =8

$$\mathbf{w}=\!\!1$$
 , $\mathbf{h}=\!\!7$, $\mathbf{x}=\!\!8$, $\mathbf{y}=\!\!0$, $\mathbf{v}=\!\!7$

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



w =6, h =7, x =0, y =0, v =42 w =4, h =7, x =6, y =0, v =28



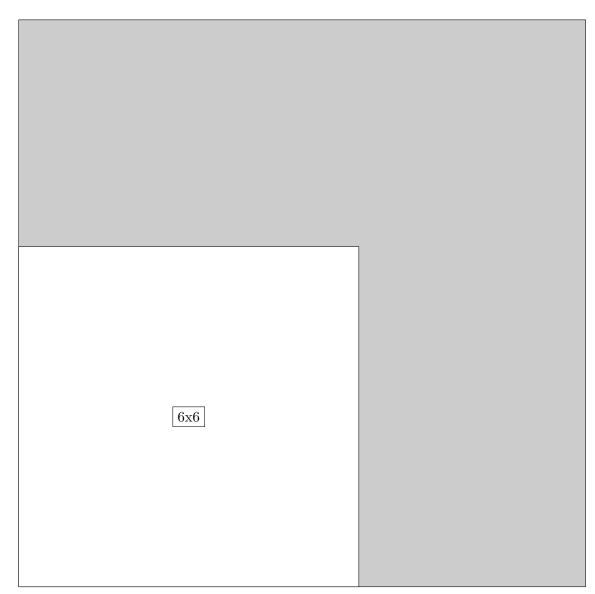
$$\mathbf{w} = \mathbf{6} \text{ , } \mathbf{h} = \mathbf{6} \text{ , } \mathbf{x} = \mathbf{0} \text{ , } \mathbf{y} = \mathbf{0} \text{ , } \mathbf{v} = \mathbf{36}$$

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

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

$$\mathbf{w}$$
 =6 , h =1 , x =0 , y =6 , v =6

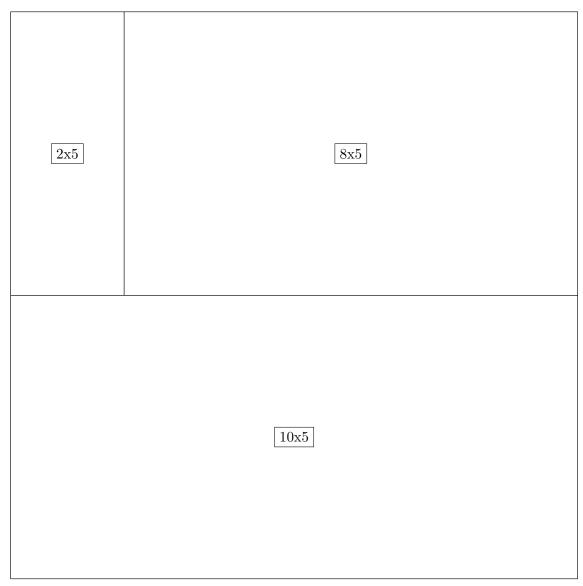
$$w = 4$$
, $h = 1$, $x = 6$, $y = 0$, $v = 4$



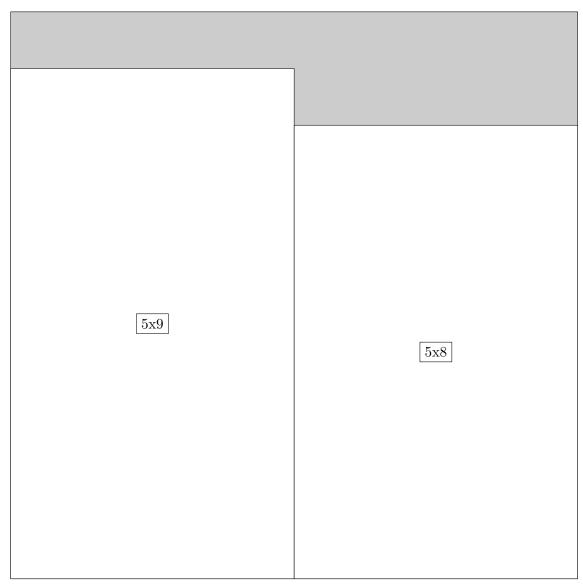
 \mathbf{w} =6 , h =6 , x =0 , y =0 , v =36

6x8	3x8	1x8

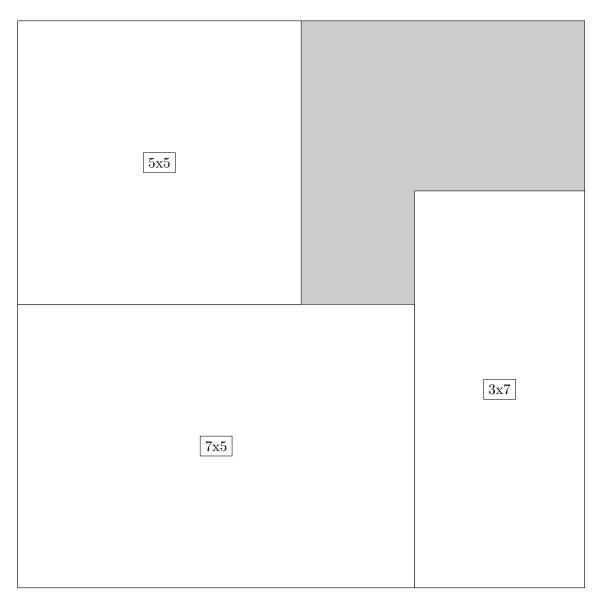
 $\begin{array}{l} w = 3 \ , \ h = 8 \ , \ x = 6 \ , \ y = 0 \ , \ v = 24 \\ w = 6 \ , \ h = 8 \ , \ x = 0 \ , \ y = 0 \ , \ v = 48 \\ w = 1 \ , \ h = 8 \ , \ x = 9 \ , \ y = 0 \ , \ v = 8 \end{array}$



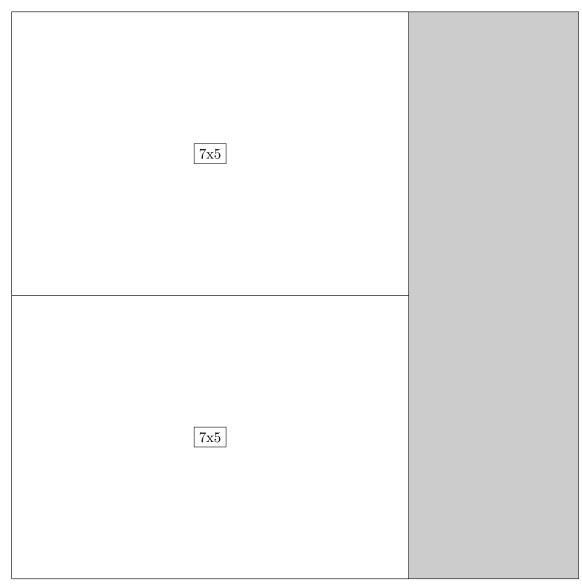
 $\begin{array}{l} w = & 10 \ , \ h = & 5 \ , \ x = & 0 \ , \ y = & 0 \ , \ v = & 50 \\ w = & 8 \ , \ h = & 5 \ , \ x = & 2 \ , \ y = & 5 \ , \ v = & 40 \\ w = & 2 \ , \ h = & 5 \ , \ x = & 0 \ , \ y = & 5 \ , \ v = & 10 \end{array}$

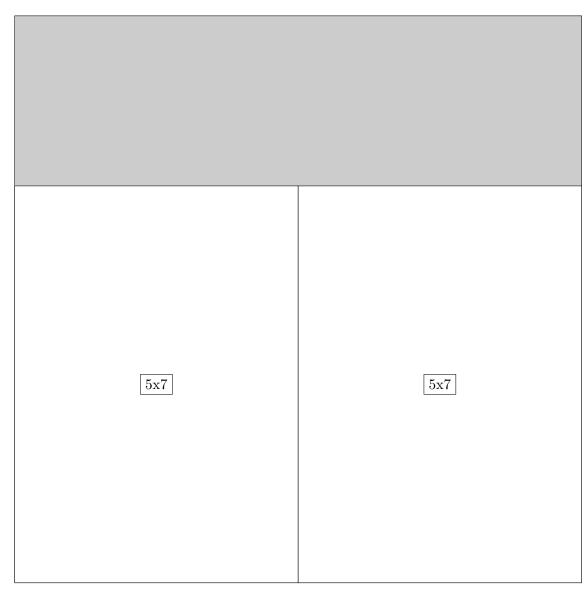


w =5, h =9, x =0, y =0, v =45 w =5, h =8, x =5, y =0, v =40



$$\begin{array}{l} w = 7 \ , \ h = 5 \ , \ x = 0 \ , \ y = 0 \ , \ v = 35 \\ w = 5 \ , \ h = 5 \ , \ x = 0 \ , \ y = 5 \ , \ v = 25 \\ w = 3 \ , \ h = 7 \ , \ x = 7 \ , \ y = 0 \ , \ v = 21 \end{array}$$





w =5 , h =7 , x =0 , y =0 , v =35 w =5 , h =7 , x =5 , y =0 , v =35