${\bf ClassName:}~{\bf Class_01.2bp\text{-}19}$

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

TypeNum: <u>30</u> Num: <u>40</u> OutS: <u>1100</u> InS: <u>1026</u> Rate: <u>0.933</u> UB: <u>11</u>

UB: <u>11</u> LB: <u>11</u>

LBWithCut: 11
NodeCount: 0
PrimalNode: 0
ColumnCount: 11
TotalCutCount: 0
RootCutCount: 0
LPSolverCnt: 1
PricingSolverCnt: 0
BranchAndBoundNum: 1

isOpt: **true**

TimeOnPrimal: $\underline{0.000 \text{ s}}$ TimeOnPricing: $\underline{0.000 \text{ s}}$ TimeOnRmp: $\underline{0.063 \text{ s}}$ TotalTime: $\underline{0.203 \text{ s}}$

3x5	7x4
3x5	7x6

$$\begin{array}{l} w=7\ ,\, h=6\ ,\, x=3\ ,\, y=0\ ,\, v=42\\ w=7\ ,\, h=4\ ,\, x=3\ ,\, y=6\ ,\, v=28\\ w=3\ ,\, h=5\ ,\, x=0\ ,\, y=0\ ,\, v=15\\ w=3\ ,\, h=5\ ,\, x=0\ ,\, y=5\ ,\, v=15 \end{array}$$

[3x2]	7x2
4x8	6x8

$$\begin{array}{l} w=6\ ,\, h=8\ ,\, x=4\ ,\, y=0\ ,\, v=48\\ w=4\ ,\, h=8\ ,\, x=0\ ,\, y=0\ ,\, v=32\\ w=7\ ,\, h=2\ ,\, x=3\ ,\, y=8\ ,\, v=14\\ w=3\ ,\, h=2\ ,\, x=0\ ,\, y=8\ ,\, v=6 \end{array}$$

	1x1	3x1
6x9		$\boxed{4\mathrm{x}9}$

 \mathbf{w} =4 , h =9 , x =6 , y =0 , v =36

 \mathbf{w} =3 , h =1 , x =7 , y =9 , v =3

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

 \mathbf{w} =6 , h =9 , x =0 , y =0 , v = 54

	4x1
6x2	
	4x9
[6x6]	

 \mathbf{w} =4 , h =9 , x =6 , y =0 , v =36

w = 4, h = 1, x = 6, y = 9, v = 4

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

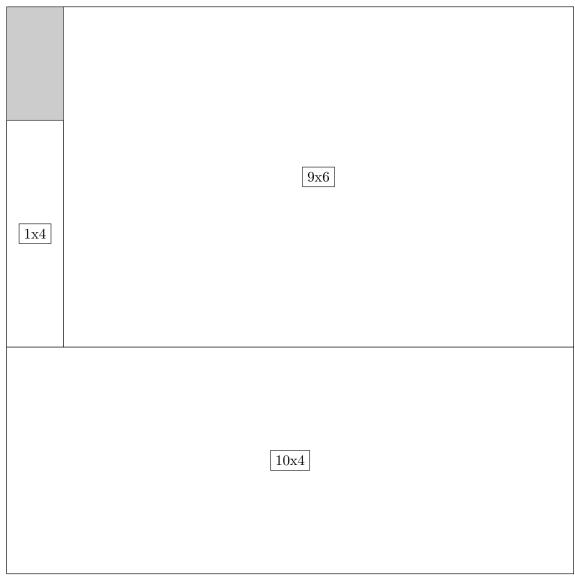
 \mathbf{w} =6 , h =2 , x =0 , y =6 , v =12

		[8x3]	
42	x7		6x7

 $\begin{array}{l} w = 6 \ , \ h = 7 \ , \ x = 4 \ , \ y = 0 \ , \ v = 42 \\ w = 4 \ , \ h = 7 \ , \ x = 0 \ , \ y = 0 \ , \ v = 28 \\ w = 8 \ , \ h = 3 \ , \ x = 2 \ , \ y = 7 \ , \ v = 24 \end{array}$

3x1	7x1
	10x1
4x8	6x8

 $\begin{array}{l} w=6 \ , \ h=8 \ , \ x=4 \ , \ y=0 \ , \ v=48 \\ w=4 \ , \ h=8 \ , \ x=0 \ , \ y=0 \ , \ v=32 \\ w=10 \ , \ h=1 \ , \ x=0 \ , \ y=8 \ , \ v=10 \\ w=7 \ , \ h=1 \ , \ x=3 \ , \ y=9 \ , \ v=7 \\ w=3 \ , \ h=1 \ , \ x=0 \ , \ y=9 \ , \ v=3 \end{array}$



$$\begin{array}{l} w = \! 10 \ , \ h = \! 4 \ , \ x = \! 0 \ , \ y = \! 0 \ , \ v = \! 40 \\ w = \! 9 \ , \ h = \! 6 \ , \ x = \! 1 \ , \ y = \! 4 \ , \ v = \! 54 \\ w = \! 1 \ , \ h = \! 4 \ , \ x = \! 0 \ , \ y = \! 4 \ , \ v = \! 4 \end{array}$$

	3x1	
2x4	3x3	
		5x10
	5x6	

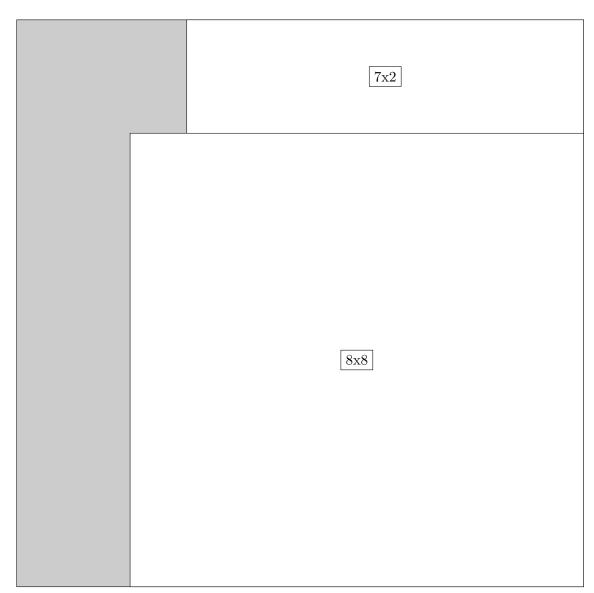
$$w=\!5$$
 , $h=\!10$, $x=\!5$, $y=\!0$, $v=\!50$

$$\le =5$$
 , h =6 , x =0 , y =0 , v =30

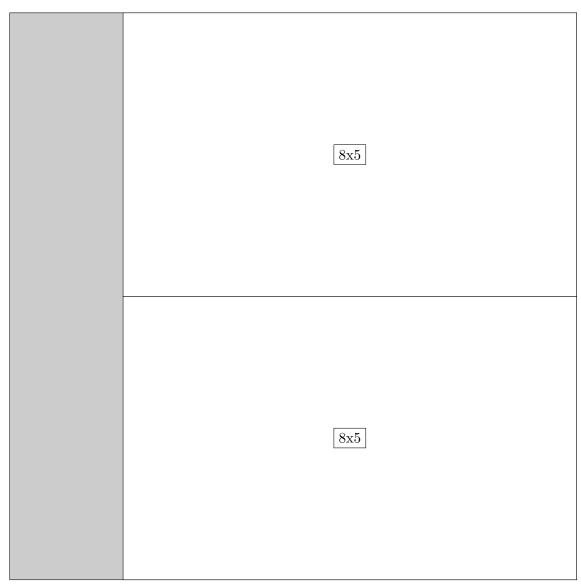
$$\mathbf{w}=\!3$$
 , $\mathbf{h}=\!\!3$, $\mathbf{x}=\!\!2$, $\mathbf{y}=\!\!6$, $\mathbf{v}=\!\!9$

$$\mathbf{w}=\!3$$
 , $\mathbf{h}=\!1$, $\mathbf{x}=\!2$, $\mathbf{y}=\!9$, $\mathbf{v}=\!3$

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



$$\begin{array}{l} w = 8 \ , \, h = 8 \ , \, x = 2 \ , \, y = 0 \ , \, v = 64 \\ w = 7 \ , \, h = 2 \ , \, x = 3 \ , \, y = 8 \ , \, v = 14 \end{array}$$



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

	9x2
	6x4
4x7	6x4

$$\begin{array}{l} w=6\ ,\, h=4\ ,\, x=4\ ,\, y=0\ ,\, v=24\\ w=6\ ,\, h=4\ ,\, x=4\ ,\, y=4\ ,\, v=24\\ w=4\ ,\, h=7\ ,\, x=0\ ,\, y=0\ ,\, v=28\\ w=9\ ,\, h=2\ ,\, x=1\ ,\, y=8\ ,\, v=18 \end{array}$$