$ClassName: \ Class\_01.2bp\text{-}43$ 

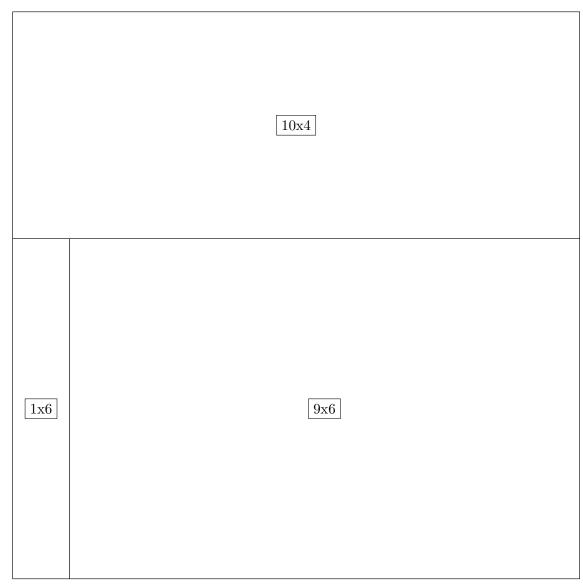
 $\begin{array}{ll} \text{BinSize: } \underline{\mathbf{10} \times \mathbf{10}} \\ \text{ReduceSize: } \underline{\mathbf{10} \times \mathbf{10}} \end{array}$ 

TypeNum: <u>65</u> Num: <u>100</u> OutS: <u>3000</u> InS: <u>2881</u> Rate: <u>0.960</u> UB: <u>30</u> LB: <u>30</u>

LBWithCut:  $\underline{30}$ NodeCount:  $\underline{0}$ PrimalNode:  $\underline{0}$ ColumnCount:  $\underline{30}$ TotalCutCount:  $\underline{0}$ RootCutCount:  $\underline{0}$ LPSolverCnt:  $\underline{1}$ PricingSolverCnt:  $\underline{0}$ BranchAndBoundNum:  $\underline{1}$ 

isOpt: **true** 

TimeOnPrimal:  $\underline{0.000 \text{ s}}$ TimeOnPricing:  $\underline{0.000 \text{ s}}$ TimeOnRmp:  $\underline{0.079 \text{ s}}$ TotalTime:  $\underline{0.219 \text{ s}}$ 



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

| 2x4 | $8\mathrm{x}5$ |
|-----|----------------|
| 2x4 | 8x5            |

$$\begin{array}{l} w = 8 \ , \, h = \! 5 \ , \, x = \! 2 \ , \, y = \! 0 \ , \, v = \! 40 \\ w = \! 2 \ , \, h = \! 4 \ , \, x = \! 0 \ , \, y = \! 0 \ , \, v = \! 8 \\ w = \! 8 \ , \, h = \! 5 \ , \, x = \! 2 \ , \, y = \! 5 \ , \, v = \! 40 \end{array}$$

 $\mathbf{w}$  =2 , h =4 , x =0 , y =5 , v =8

| 4x3 |     | 3x5 | 3x5 |
|-----|-----|-----|-----|
|     | 1x1 |     |     |
| 4x7 | 1x4 |     | 5x5 |

w = 5, h = 5, x = 5, y = 0, v = 25

 $\mathbf{w}$  =1 , h =4 , x =4 , y =0 , v =4

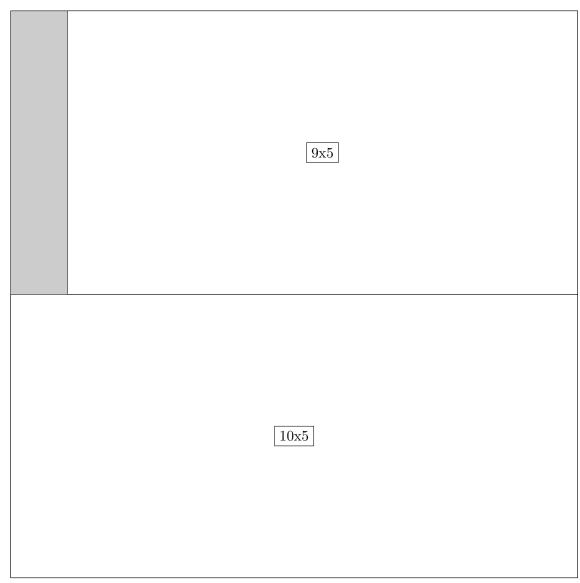
w = 1, h = 1, x = 4, y = 4, v = 1

 $\mathbf{w}$  =3 , h =5 , x =7 , y =5 , v = 15

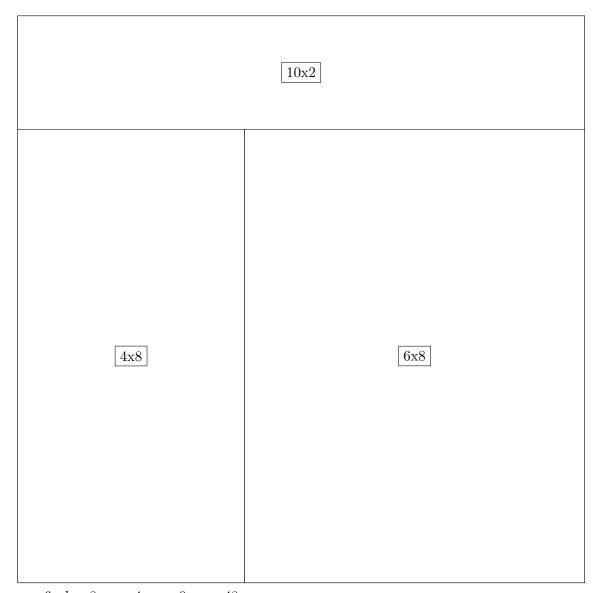
w = 3, h = 5, x = 4, y = 5, v = 15

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

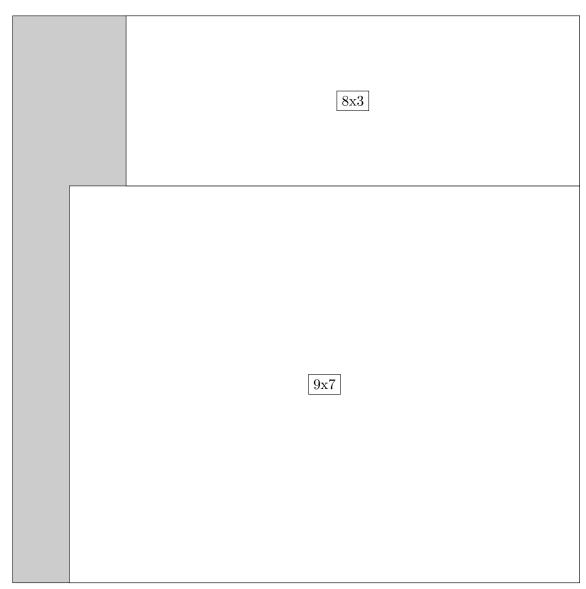
w = 4, h = 3, x = 0, y = 7, v = 12



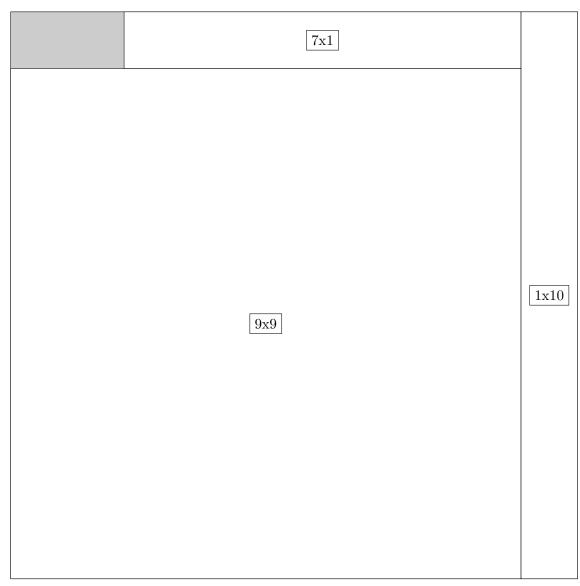
$$\begin{array}{l} w = & 10 \ , \ h = & 5 \ , \ x = & 0 \ , \ y = & 0 \ , \ v = & 50 \\ w = & 9 \ , \ h = & 5 \ , \ x = & 1 \ , \ y = & 5 \ , \ v = & 45 \end{array}$$



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



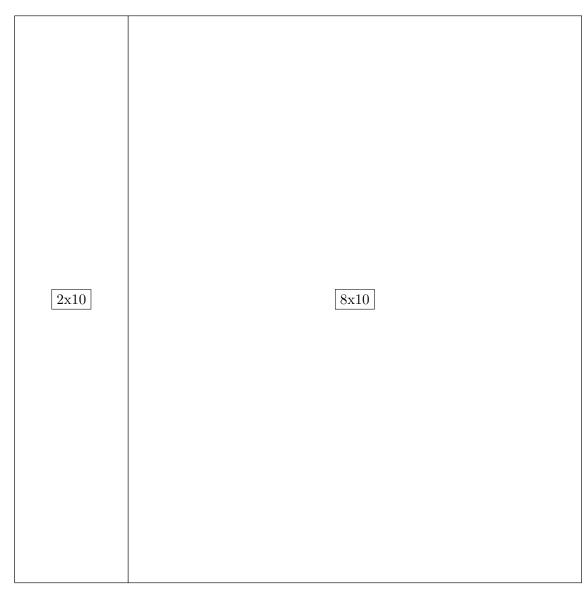
$$\begin{array}{c} w = 9 \ , \ h = 7 \ , \ x = 1 \ , \ y = 0 \ , \ v = 63 \\ w = 8 \ , \ h = 3 \ , \ x = 2 \ , \ y = 7 \ , \ v = 24 \end{array}$$

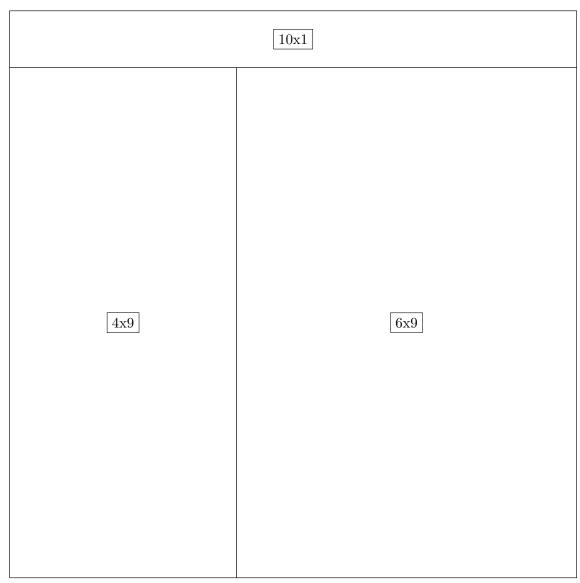


w=1 , h =10 , x =9 , y =0 , v =10

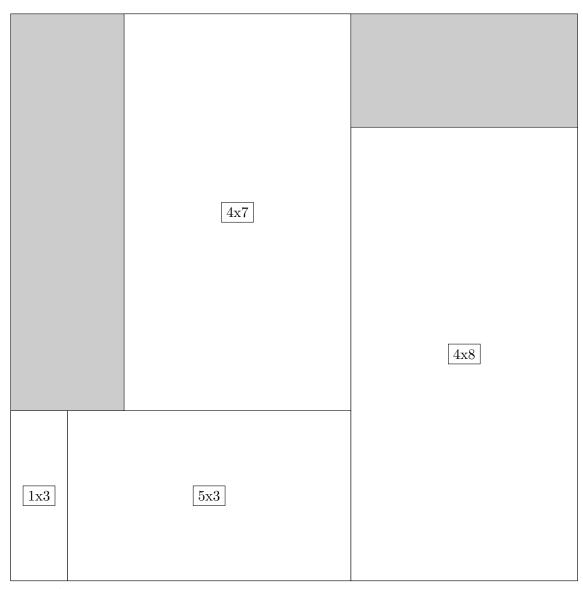
 $\mathbf{w}$  =9 , h =9 , x =0 , y =0 , v =81

 $\mathbf{w}$  =7 ,  $\mathbf{h}$  =1 ,  $\mathbf{x}$  =2 ,  $\mathbf{y}$  =9 ,  $\mathbf{v}$  =7

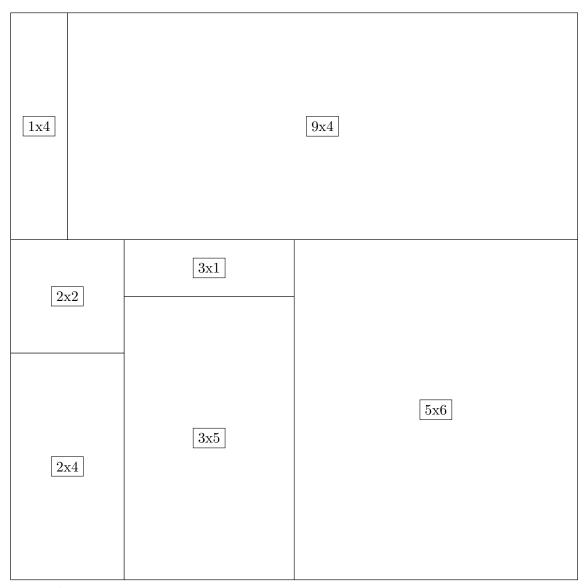




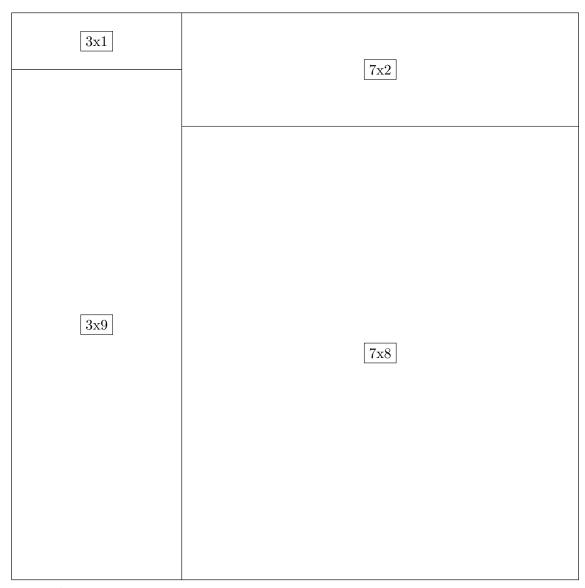
 $\begin{array}{l} w = 6 \ , \ h = 9 \ , \ x = 4 \ , \ y = 0 \ , \ v = 54 \\ w = 4 \ , \ h = 9 \ , \ x = 0 \ , \ y = 0 \ , \ v = 36 \\ w = 10 \ , \ h = 1 \ , \ x = 0 \ , \ y = 9 \ , \ v = 10 \end{array}$ 



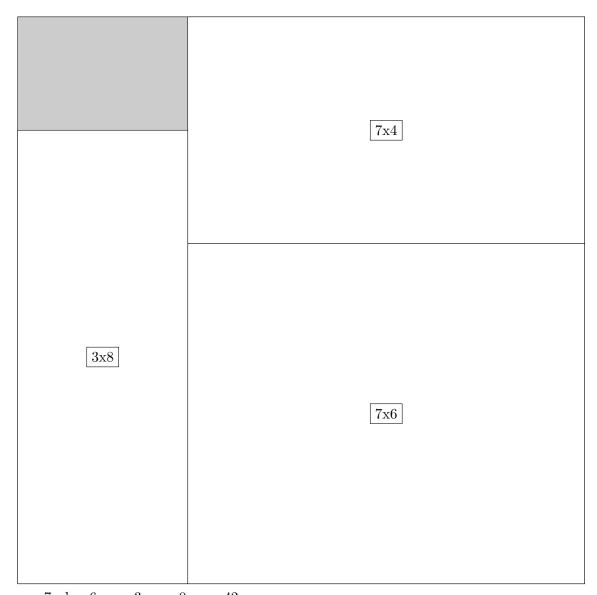
 $\begin{array}{l} w = 4 \ , \ h = 8 \ , \ x = 6 \ , \ y = 0 \ , \ v = 32 \\ w = 5 \ , \ h = 3 \ , \ x = 1 \ , \ y = 0 \ , \ v = 15 \\ w = 1 \ , \ h = 3 \ , \ x = 0 \ , \ y = 0 \ , \ v = 3 \\ w = 4 \ , \ h = 7 \ , \ x = 2 \ , \ y = 3 \ , \ v = 28 \end{array}$ 



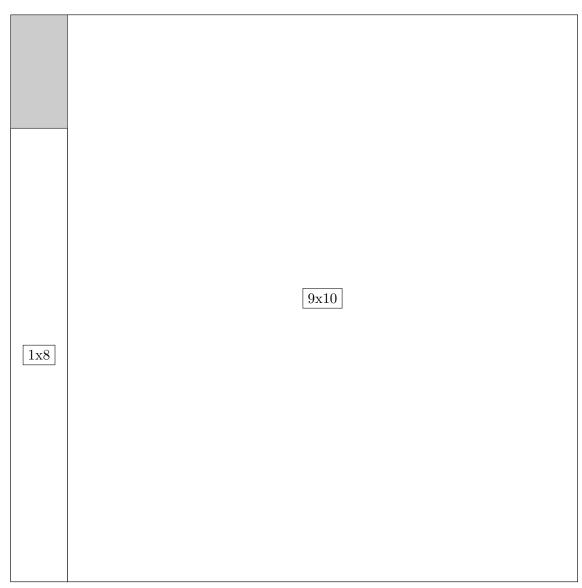
$$\begin{array}{l} w = 5 \ , \ h = 6 \ , \ x = 5 \ , \ y = 0 \ , \ v = 30 \\ w = 3 \ , \ h = 5 \ , \ x = 2 \ , \ y = 0 \ , \ v = 15 \\ w = 3 \ , \ h = 1 \ , \ x = 2 \ , \ y = 5 \ , \ v = 3 \\ w = 2 \ , \ h = 4 \ , \ x = 0 \ , \ y = 0 \ , \ v = 8 \\ w = 2 \ , \ h = 2 \ , \ x = 0 \ , \ y = 4 \ , \ v = 4 \\ w = 9 \ , \ h = 4 \ , \ x = 1 \ , \ y = 6 \ , \ v = 36 \\ w = 1 \ , \ h = 4 \ , \ x = 0 \ , \ y = 6 \ , \ v = 4 \end{array}$$



$$\begin{array}{l} w=7\ ,\, h=8\ ,\, x=3\ ,\, y=0\ ,\, v=56\\ w=7\ ,\, h=2\ ,\, x=3\ ,\, y=8\ ,\, v=14\\ w=3\ ,\, h=9\ ,\, x=0\ ,\, y=0\ ,\, v=27\\ w=3\ ,\, h=1\ ,\, x=0\ ,\, y=9\ ,\, v=3 \end{array}$$



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



w =9, h =10, x =1, y =0, v =90 w =1, h =8, x =0, y =0, v =8

| [3x2] | 7x2 |
|-------|-----|
| 4x8   | 6x8 |

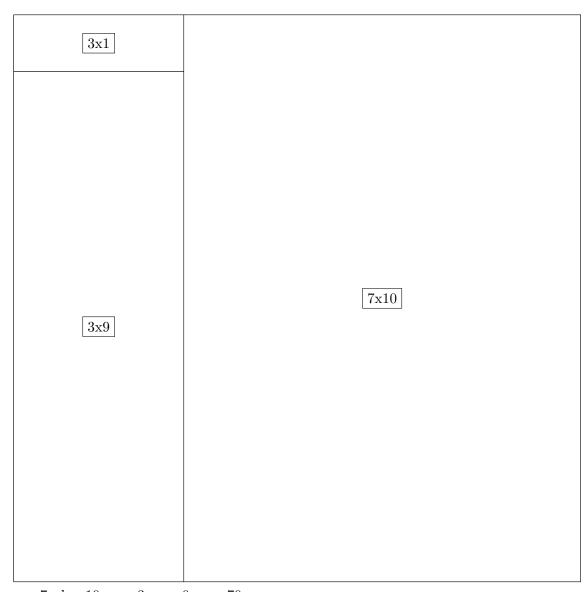
$$\begin{array}{l} w=6 \ , \ h=8 \ , \ x=4 \ , \ y=0 \ , \ v=48 \\ w=4 \ , \ h=8 \ , \ x=0 \ , \ y=0 \ , \ v=32 \\ w=7 \ , \ h=2 \ , \ x=3 \ , \ y=8 \ , \ v=14 \\ w=3 \ , \ h=2 \ , \ x=0 \ , \ y=8 \ , \ v=6 \end{array}$$

| 7x2 |      |
|-----|------|
|     |      |
| 8x8 | 2x10 |
|     |      |
|     |      |

w=2 , h=10 , x=8 , y=0 , v=20

 $\mathbf{w}$  =8 , h =8 , x =0 , y =0 , v =64

 $\mathbf{w}$  =7 , h =2 , x =1 , y =8 , v =14



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

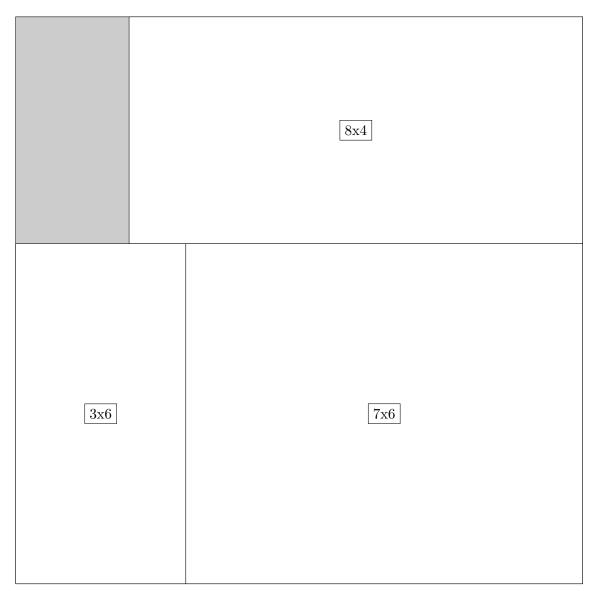
|     | 6x2 |
|-----|-----|
| 2x8 | 8x8 |

 $\begin{array}{l} w = 8 \ , \ h = 8 \ , \ x = 2 \ , \ y = 0 \ , \ v = 64 \\ w = 2 \ , \ h = 8 \ , \ x = 0 \ , \ y = 0 \ , \ v = 16 \\ w = 6 \ , \ h = 2 \ , \ x = 4 \ , \ y = 8 \ , \ v = 12 \end{array}$ 

| 3x3 | [7x3] |
|-----|-------|
| 1x7 | 9x7   |

$$\begin{array}{l} w = 9 \ , \ h = 7 \ , \ x = 1 \ , \ y = 0 \ , \ v = 63 \\ w = 1 \ , \ h = 7 \ , \ x = 0 \ , \ y = 0 \ , \ v = 7 \\ w = 7 \ , \ h = 3 \ , \ x = 3 \ , \ y = 7 \ , \ v = 21 \end{array}$$

 $\mathbf{w}$  =3 , h =3 , x =0 , y =7 , v =9



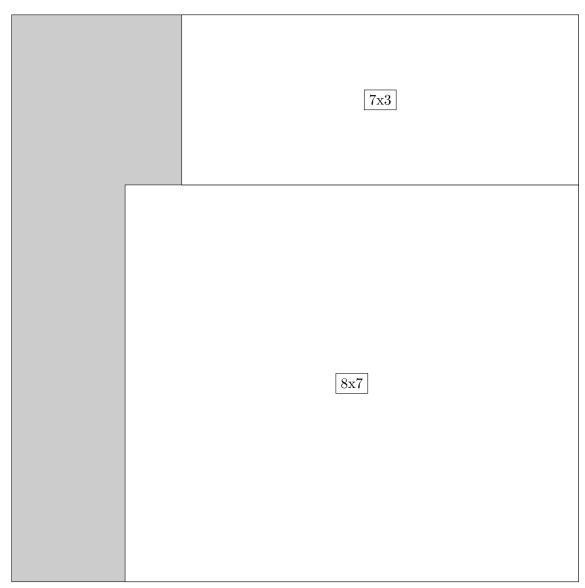
$$\begin{array}{l} w = 7 \ , \ h = 6 \ , \ x = 3 \ , \ y = 0 \ , \ v = 42 \\ w = 3 \ , \ h = 6 \ , \ x = 0 \ , \ y = 0 \ , \ v = 18 \\ w = 8 \ , \ h = 4 \ , \ x = 2 \ , \ y = 6 \ , \ v = 32 \end{array}$$

|     | 6x4 |
|-----|-----|
| 4x9 | 6x6 |
|     |     |

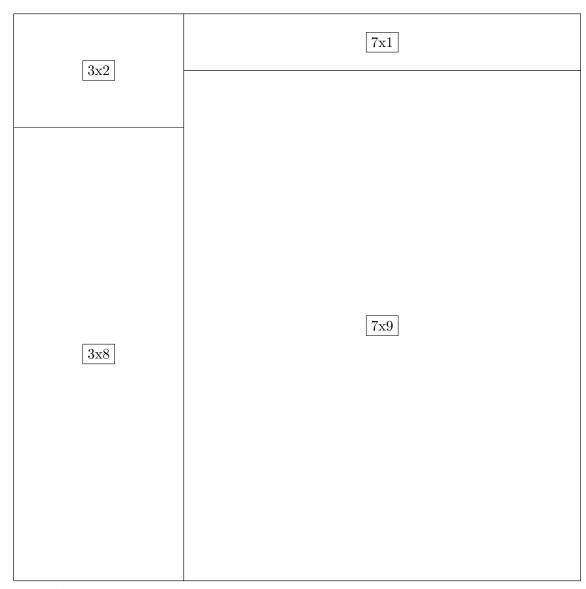
 $\begin{array}{l} w=6 \ , \ h=6 \ , \ x=4 \ , \ y=0 \ , \ v=36 \\ w=6 \ , \ h=4 \ , \ x=4 \ , \ y=6 \ , \ v=24 \\ w=4 \ , \ h=9 \ , \ x=0 \ , \ y=0 \ , \ v=36 \end{array}$ 

| $5\mathrm{x}10$ | $5\mathrm{x}10$ |
|-----------------|-----------------|
|                 |                 |





$$\begin{array}{l} w = 8 \ , \, h = 7 \ , \, x = 2 \ , \, y = 0 \ , \, v = 56 \\ w = 7 \ , \, h = 3 \ , \, x = 3 \ , \, y = 7 \ , \, v = 21 \end{array}$$



$$\mathbf{w}$$
 =7 , h =9 , x =3 , y =0 , v =63

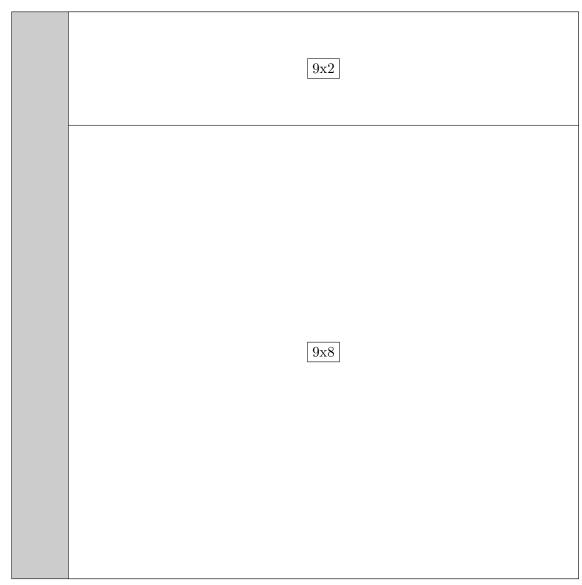
$$w = 7$$
,  $h = 1$ ,  $x = 3$ ,  $y = 9$ ,  $v = 7$ 

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

$$\mathbf{w}$$
 =3 , h =2 , x =0 , y =8 , v =6

| 4x9 6x6 | 4x1                    |       |
|---------|------------------------|-------|
|         |                        | 6x4   |
| 6x6     | $\boxed{4\mathrm{x}9}$ |       |
|         |                        | [6x6] |

$$\begin{array}{l} w=6 \ , h=6 \ , x=4 \ , y=0 \ , v=36 \\ w=6 \ , h=4 \ , x=4 \ , y=6 \ , v=24 \\ w=4 \ , h=9 \ , x=0 \ , y=0 \ , v=36 \\ w=4 \ , h=1 \ , x=0 \ , y=9 \ , v=4 \end{array}$$



$$\begin{array}{c} w = 9 \ , \ h = 8 \ , \ x = 1 \ , \ y = 0 \ , \ v = 72 \\ w = 9 \ , \ h = 2 \ , \ x = 1 \ , \ y = 8 \ , \ v = 18 \end{array}$$

| 4x7 | 6x7 |
|-----|-----|

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

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

 $\mathbf{w}$  =6 , h =3 , x =4 , y =7 , v =18

 $\mathbf{w}=\!\!4$  ,  $\mathbf{h}=\!\!3$  ,  $\mathbf{x}=\!\!0$  ,  $\mathbf{y}=\!\!7$  ,  $\mathbf{v}=\!\!12$ 

|     | 62  | x2  |
|-----|-----|-----|
| 4x8 | 3x4 | 3x4 |
|     | 62  | x4  |

w = 6, h = 4, x = 4, y = 0, v = 24

 $\mathbf{w}$  =3 , h =4 , x =7 , y =4 , v =12 w = 3, h = 4, x = 4, y = 4, v = 12

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

w = 6, h = 2, x = 4, y = 8, v = 12

|     | 8x1 |
|-----|-----|
|     |     |
|     |     |
|     |     |
|     |     |
| 2x9 | 8x9 |
|     |     |
|     |     |
|     |     |
|     |     |
|     |     |

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

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