

Step 1
This is the witch's house.


How does the witch's house look like?

Read the texts, look at the pictures and draw the decorations according to the description.
The roof is decorated with jelly beans and sweets: 16 lines of jelly beans and sweets alternatively. There are 96 jelly beans and 128 sweets.
Use letters instead of drawings: JB for the jelly beans and S for the sweets.
Then fill out the table, write your operations. Look at the examples.
The roof (both sides of the roof look the same):


The windows are decorated with lollypops. There are 2 windows on walls $B$ and $D$ have got 8 lollypops each. There are 2 windows on walls $A$ and $E$ have got 6 lollypops each.

The walls:

* Wall $A$ is a square: 12 rows horizontally and 12 rows vertically. The wall $A$ is decorated with biscuits. 1 biscuit covers 1 row horizontally and 1 row vertically. But the witch doesn't put any biscuits on the windows and on the door! The door is decorated with 18 pieces of chocolate in 3 rows. The witch's house has got one door only on wall A.
* Use letters instead of drawings: B for biscuits, L for lollypops and C for the pieces of chocolate.

Wall A: What does it look like?

|  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

* Wall E looks exactly as wall A, but it hasn't got any door.

Wall A: What does it look like?

|  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

* Wall $B$ is a rectangle: 12 rows horizontally and 16 rows vertically.
* Wall B is decorated with gingerbread. A piece of gingerbread covers 2 rows vertically and 1 row horizontally. Wall B has got 2 windows, each window is 2 rows horizontally and 4 rows vertically. The witch doesn't cover the windows with gingerbread!
* Wall D looks exactly as wall B.
* Use letters instead of drawings: G for the pieces of gingerbread and L for the lollypops.

Wall B / Wall D: What do they look like?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

* Wall C is a triangle. Wall C is decorated with licorice wheels: there are 12 licorice wheels on the first row at the bottom, 11 licorice wheels on the second row, 10 licorice wheels on the third row and so on to the last row: there is 1 licorice wheel there.
* Wall F looks exactly as wall C.
* Use letters instead of drawings: LW for the licorice wheels.

Wall C / Wall F: What do they look like?


Fill out the table, write your operations. Look at the examples:

|  |  |  | pieces of chocolate $\square$ | Iollypops | biscuits $\square$ | pieces of gingerbread | licorice wheels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { roof } \\ \text { (2 sides) } \end{gathered}$ | (8x8) $\times 2$ | $(8 \times 6) \times 2$ | 0 | 0 | 0 | 0 | 0 |
| door | 0 | 0 |  |  |  |  |  |
| windows | 0 | 0 |  |  |  |  |  |
| wall A | 0 | 0 |  |  |  |  |  |
| wall E | 0 | 0 |  |  |  |  |  |
| wall B | 0 | 0 |  |  |  |  |  |
| wall D | 0 | 0 |  |  |  |  |  |
| wall C | 0 | 0 |  |  |  |  |  |
| wall F | 0 | 0 |  |  |  |  |  |
| total | 128 | 96 |  |  |  |  |  |

## Step 2



| Yummi! | Yummi! |
| :--- | :--- |
| Licorice wheels! Biscuits! |  |
| Gilly beans! Sweets! |  |
| Jolly beaps! Sweets! Biscuits! |  |
| Yuck! Lollypops! | Chocolate! |
| Yuck! Licorice wheels! |  |



Nibble, nibble, like a mouse,
Who is nibbling at my house?

The witch walks around her house...


There are 111 things missing. How many pieces of gingerbread are missing?

* Hansel eats more jelly beans than Gretel.
* Gretel eats less biscuits than Hansel.
* Hansel eats less than 24 sweets.
* Hansel eats more pieces of gingerbread than Gretel.
* Hansel eats more than 10 pieces of gingerbread but less than 15 pieces of gingerbread.
* Hansel eats as many pieces of chocolate as Gretel.

Fill out the table, write your operations.

|  |  | pieces of chocolate | Iollypops | licorice wheels | biscuits <br>  | pieces of gingerbread | jelly beans |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hansel |  |  |  |  |  |  |  |
| Gretel |  |  |  |  |  |  |  |
| total 111 |  |  |  |  |  |  |  |


|  |  | pieces of chocolate | lollypops | licorice wheels | biscuits | pieces of gingerbread | jelly beans |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hansel |  |  |  |  |  |  |  |
| Gretel |  |  |  |  |  |  |  |
| total 111 |  |  |  |  |  |  |  |


|  | sweets |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | pieces of <br> chocolate | lollypops <br> Hansel |  |  |  | licorice wheels |


|  | sweets | peces of <br> chocolate | lollypops | licorice wheels | biscuits | pieces of |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| gingerbread | jelly beans |  |  |  |  |  |  |
| Hansel |  |  |  |  |  |  |  |
| Gretel |  |  |  |  |  |  |  |
| total 111 |  |  |  |  |  |  |  |

