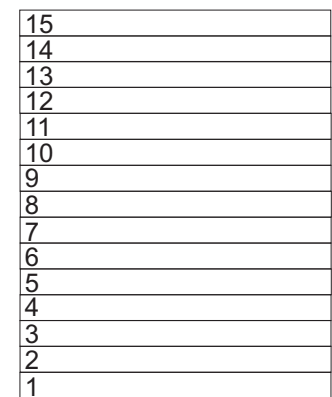
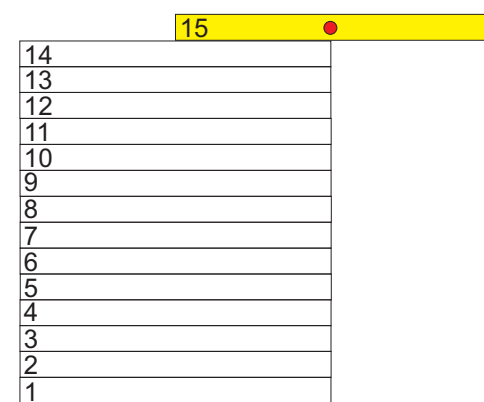


C E N T E R O F G R A V I T Y

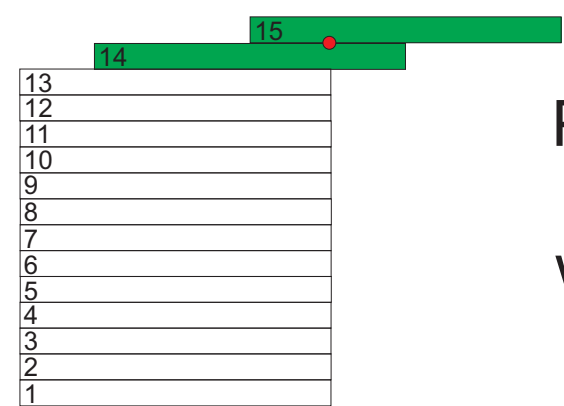
Can You Make the Blocks Balance?



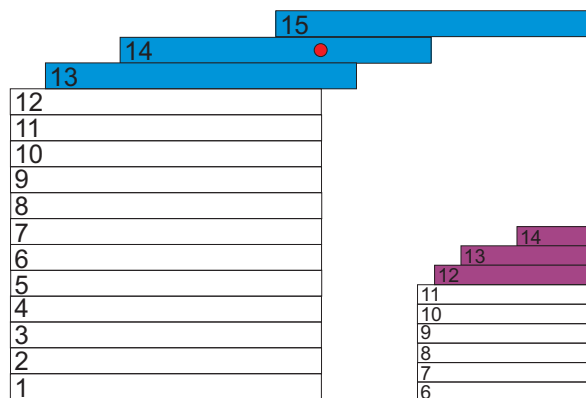
Stack the blocks, with 1 at the bottom, 15 on top.



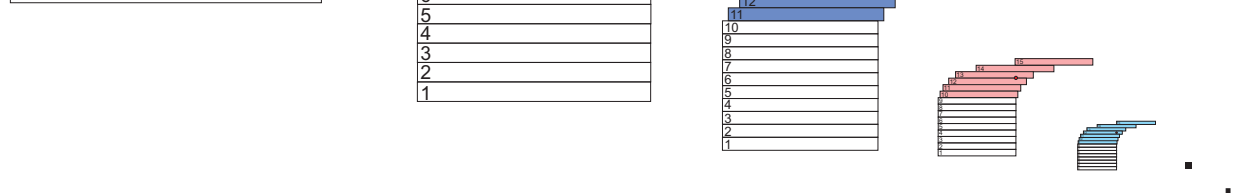
Push the top block as far as you can without letting it fall.



Push the top two blocks as far as you can without letting them fall.

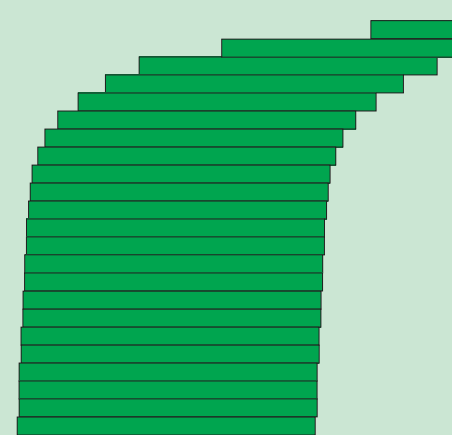


Keep pushing blocks...



How far can you make the tower extend?

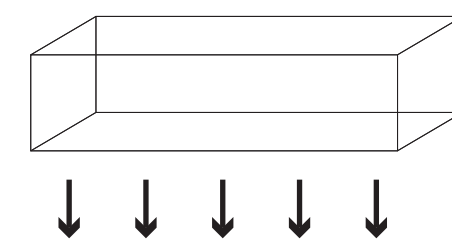
So...?



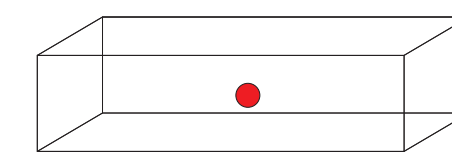
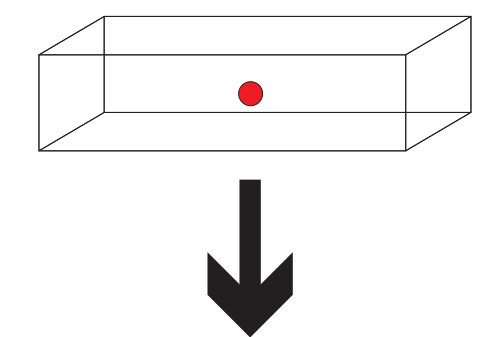
If you had enough blocks, there's no limit to how far your tower could extend without falling over!

How Does it Work?

Gravity pulls down on all parts of an object.

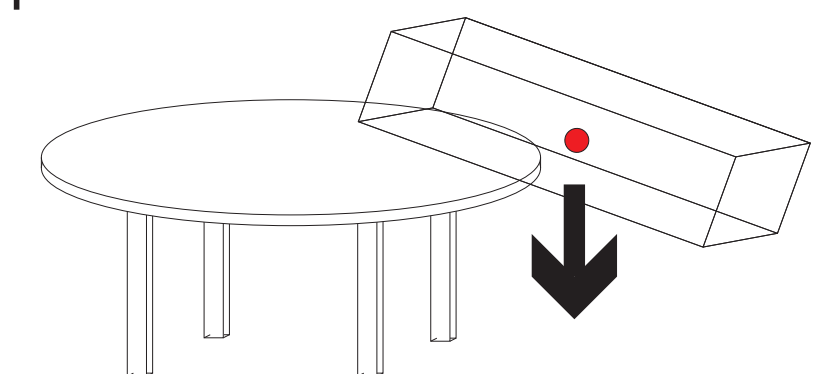
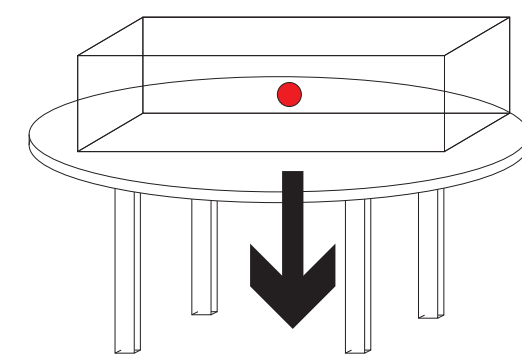


Altogether, it acts as if a single force was pulling at one point.



This point is called the **center of gravity**.

For something to balance, the **center of gravity** must be supported.

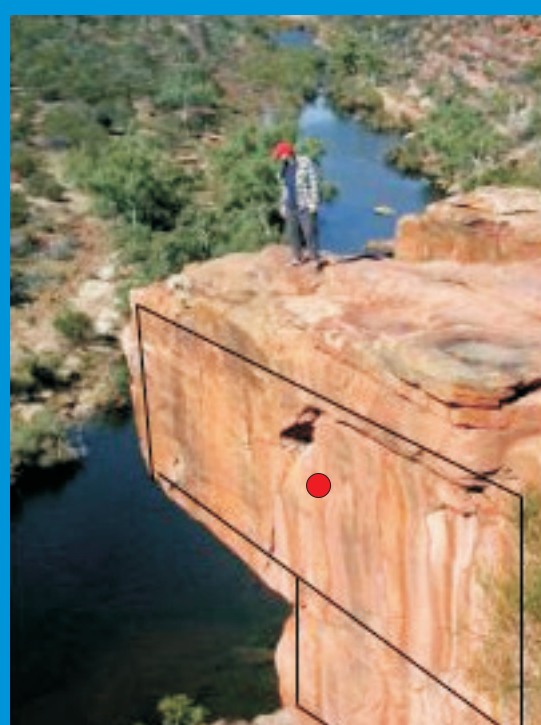


As long as their **center of gravity** is supported, things can't fall.

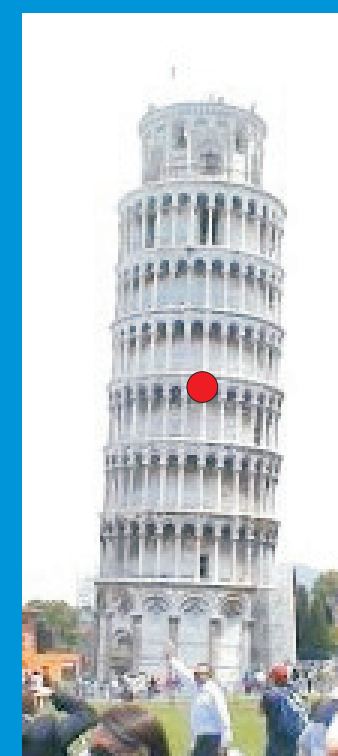
Everything Has a **Center of Gravity**!

Does this look familiar?

(Hint: Look at your blocks!)

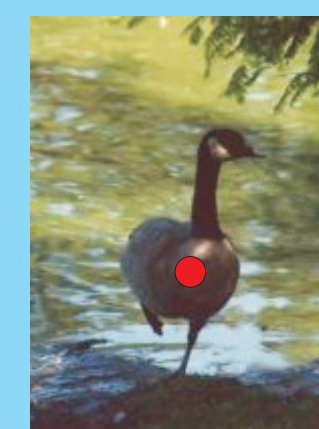


People have a **center of gravity**, too!



This tower has been leaning for 800 years - and still hasn't fallen!

What about you?



Can you stand on one foot like this goose?

Where is your **center of gravity**?

If your **center of gravity** is supported, you can stand in all sorts of positions!

Stack the Blocks Here

**Can you make the
top block reach
to here?**

... or here?

**... or here?
(the top block
is now completely
off the bottom one.
Look!)**

**... how about
here!?
(yes, it's possible!)**