



[Video Link](#)



#### SETTINGS

For this task, make sure that the **Numeric Factor Values** and the **Numeric Product Values** are turned off in settings.



#### TEACHER TIP

The language used here is very important and highlights the **unitising** of the pips into a pod and then the **unitising** of the pods into the envelope.

## Pips into Pods

### Summary

This task invites students to notice the **unitising** relationship between the pips and each pod and the pods and the product.

### Game

Choose one student to leave the room and another student to come up to the iPad that is being projected for all to see. Using Grasplify, student 2 creates a multiplication number sentence with pips and pods for all to see. Student 1 returns to the classroom and must recreate student 2's multiplication number sentence based on hints given by classmates.

### What to Watch For

- Students who have had experience with multiplication may describe what they see as "4 pods of 5 pips". Encourage them to describe what they see using the pips first, "5 pips taken 4 times" or "5, 4 times" or "5 pips in each of 4 pods". If students comment on the total number of pips in the pods, you can bring the product—20 in this case—into the description.
- Students might also comment on the colour and shape of the pods with respect to the pips, but if they don't, you can prompt their noticing either by asking about colour or by lifting a pip-finger and pressing it down again.

### Questions to Ask

- How did you figure out the total?
- Are there are other ways of counting?

### Tasks

- Ask students to model the following situation using Grasplify: *On the weekend, I went to the Dollar store to buy some pens. When I got there, they only had packages of 5. I needed enough for our class, so I bought 6 packs. Use Grasplify to show what the packages of pens would look like. Be sure to include enough packages for our class.*
- Ask students to draw the following situation, *While at the Dollar store, I also saw some boxes of dry erase markers. There were 4 markers in each box, so I bought 3 boxes. Draw  $4 \times 3 = 12$  using pips and pods the way that Grasplify would show it.*
- Show a screenshot of Grasplify that has 9 pips and 3 pods. Ask students to come up with other situation stories that fit this model. You can vary the numbers used to provide other examples, if needed.
- Have students create a multiplication story that their partner demonstrates using Grasplify. Challenge students to come up with a variety of different stories.

### Questions to Ask

- How can we find the total number of pens (in this case, pips), without counting every pip?
- How does an extra pip (or pen) change the situation in the packages?
- What would it look like in Grasplify if each pack contained a different number of pens?

### Extending Student Learning

Provide a list of skip counting number sequences (e.g. 2, 4, 6, 8; 3, 6, 9, 12; 4, 8, 12, 16; 5, 10, 15, 20, 25) and ask students which number sequence they would use to count the pips without counting each and every pip. This way the students who are not fluent in skip counting number sequences might also find an entry point for this task.

### Assessment

Have students draw a picture of what the Grasplify screen would look like for the pen-package situation and then write a number sentence that reflects what is happening on the screen.



#### TEACHER TIP

Make sure that students have made 5 pips and 6 pods. Some will have done the inverse. We want students to notice that by skip counting by five, we can find the total number of pens more quickly and easily than by counting each individual pen.



#### CAUTION!

This visual relationship requires work. Often what children see is not the same thing that we see. Watch to see that they have drawn 4 pips in 3 pods as this is the multiplicative structure in Grasplify.

