



[Video Link](#)

MAKING 198 WITH:	
Two-ples	
Three-ples	
Four-ples	
Five-ples	
Nine-ples	

## Skip Counting - Part B

### Summary

Students continue to investigate the idea of **spreading**, which is more multiplicative in nature than repeated addition.

### Task

1. Ask students to determine if it is possible to count backwards from twenty-four by using five-ples.
2. Challenge students to make the product 198 by counting up with the multi-ples on this chart (two-ples, three-ples, four-ples, five-ples and nine-ples). Only three of these multi-ples will work for skip counting to 198. Students need to figure out which three will work.

### What to Watch For

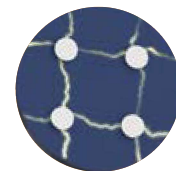
- Students can create multi-ples either on horizontal lines or on vertical lines.
- Students might tap very quickly to increase the product. Prompt them to slow down as the product becomes larger.

### Questions to Ask

- Are there any that you know immediately will not work? How do you know?
- *Can you reach 198 with two-ples?*
- *Which other multi-ples did you use to make the product 198?*
- *Can you reach at 198 using five-ples? Why not?*
- *What was the product before your final tap? How many more points do you need? Can you create that many points with one touch? How many points was your finger creating with one touch?*
- *Did you notice a pattern while skip counting with five-ples? When skip counting by five-ples, the ones digit will always be either zero or five.*
- *How does this help me know immediately if I can make 198 with five-ples? What about ten-ples? What about two-ples?*

### Extending Student Learning

- Additional multi-ples (six-ples, seven-ples, eight-ples, ten-ples) can be given to early finishers.



[Video Link](#)

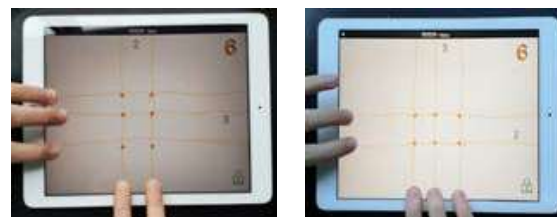
## Doubling

### Summary

Students create pictorial representations of multiplication using *TouchTimes* to investigate the mathematical strategy of doubling. In this task students explore the idea of simultaneous **multi-plying**, simultaneously creating a double of an original quantity.

### Task

1. Ask students to double a product of three so that it is six. Once they've done that, they can double the product again to make twelve. Then double it again to make twenty-four. Write the 3, 6, 12, 24 sequence on the board for students to refer to while working.



### Questions to Ask

- *Can you double the product of three in a different way?*
- *What was happening that caused the product to double?*
- *How do the factors change when you double the product?*

### Extending Student Learning

- Challenge early finishers to start with a product of five and double it.
- Another extension is to invite students to triple the product. They will quickly run out of fingers, so this might also be a task where they imagine how to triple the product and record their thinking on paper.

### Assessment

Show or explain how you would solve this problem using Zaplify:

There are six lanes in a swimming pool. In Mathew's swimming lesson, every lane is shared by two students. When another class joins Mathew's lesson, the number of students that share a lane is doubled. How many students are swimming in the pool now?