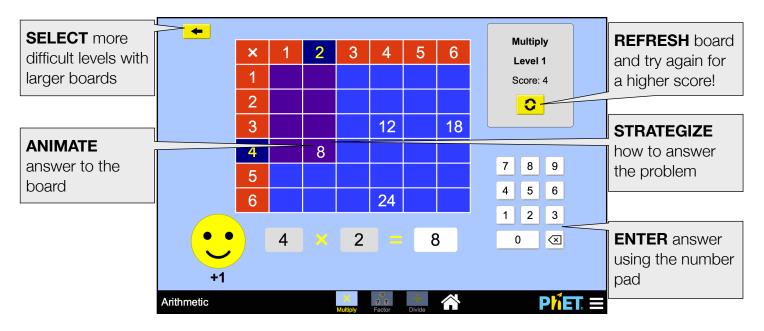


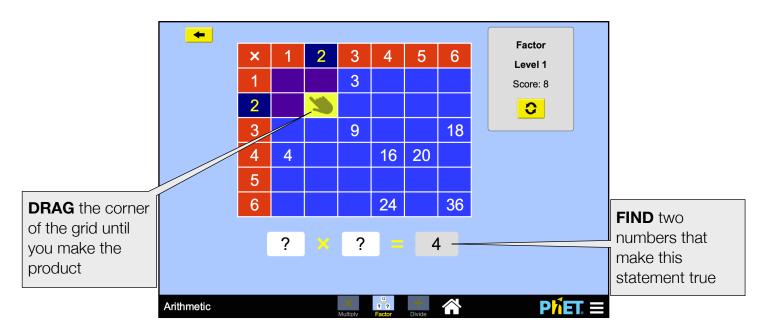
## **Multiply Screen**

In the Multiply screen, users can answer multiplication problems and receive immediate feedback on their arithmetic board.



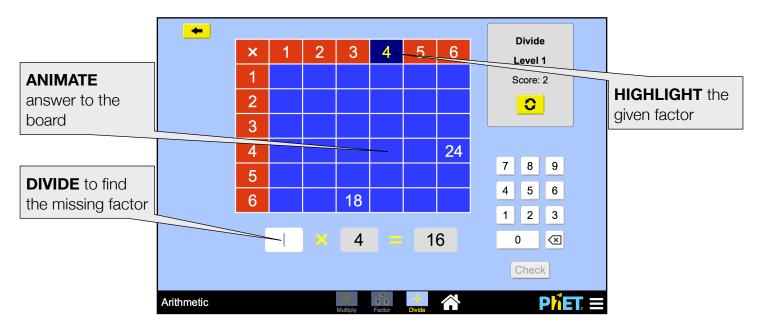
### **Factor Screen**

In the Factor screen, users drag their cursor or finger around the arithmetic board to find two numbers that multiply to equal the given product.



#### **Divide Screen**

In the Divide screen, users can use division to find the missing factor in a multiplication problem.



## **Insights into Student Use**

- Students can use the purple highlighted cells to answer a multiplication problem, whether it is using an area model for multiplication, an additive strategy, or skip-counting.
- The problems posed on the Divide screen are framed as a multiplication problem. This might be different from what students are used to, but can also be powerful in helping students see the connection between multiplication and division.

# **Suggestions for Use**

**Sample Challenge Prompts** 

- Why can two numbers be multiplied in any order?
- On the Multiply screen, how can you use the purple squares to help you answer a multiplication problem?
- On the Division screen, there is no division symbol. How is this a division problem? Re-write one of these problems as a division statement.
- Which numbers form a purple square on the arithmetic board?
- Which numbers do not appear on the arithmetic board?
- After you complete a board, what patterns do you notice? How do those patterns compare on differently sized boards?

See all published activities for Arithmetic here.

For more tips on using PhET sims with your students, see Tips for Using PhET.