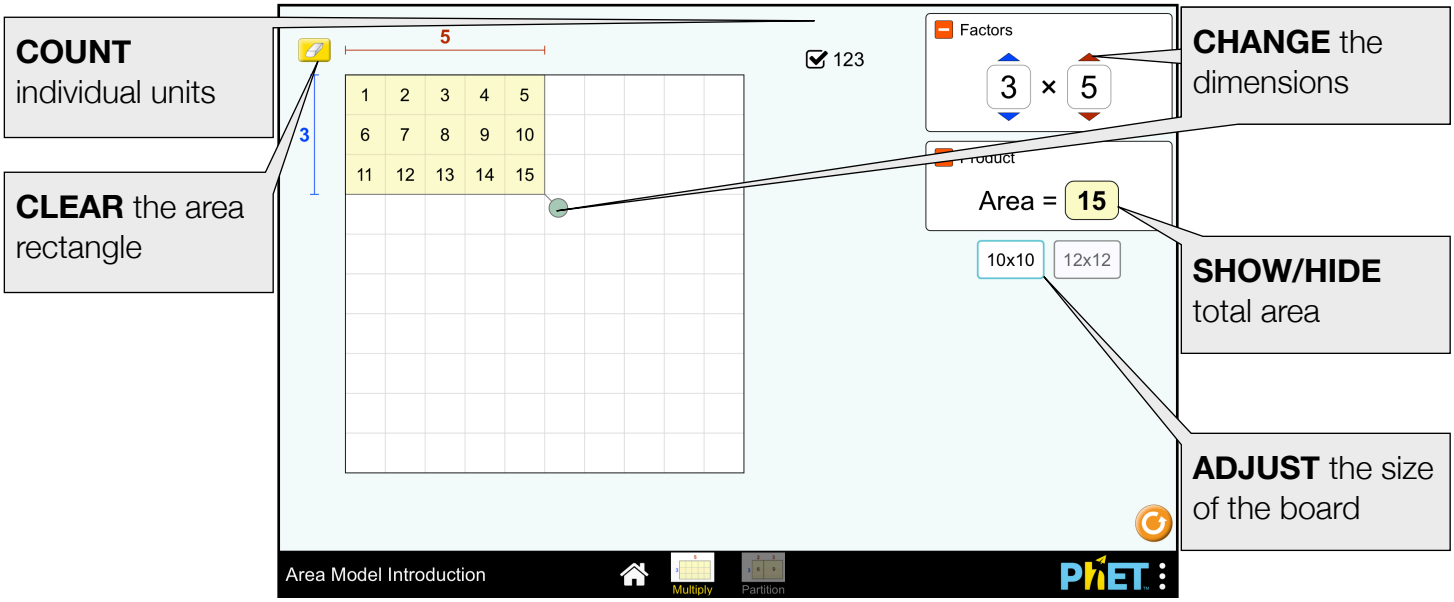
PhET Tips for Teachers

Area Model Introduction

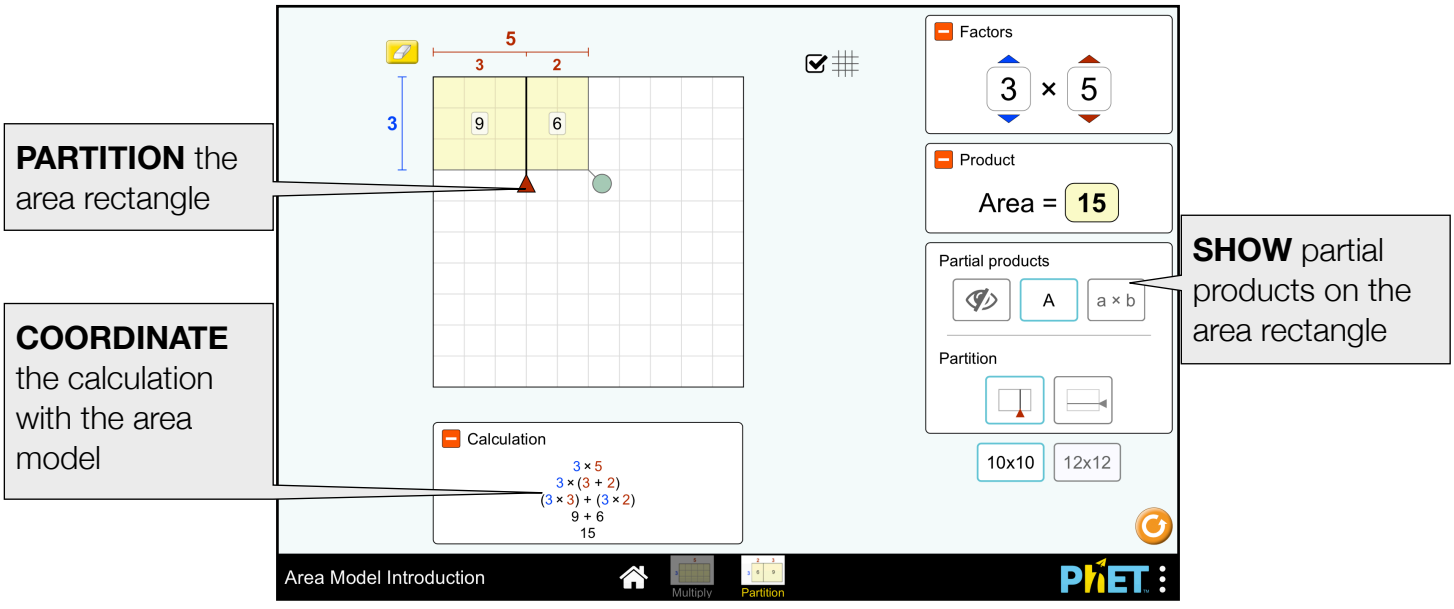
Multiply Screen

Discover how an area model can be used to justify the product of two numbers.



Partition Screen

Investigate how the product/area can be partitioned into smaller products/areas, and that the total area is the sum of the partial areas.



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Design Notes

- On the Explore screen, the area rectangle drag handle is useful for initial exploration, and the number spinners are useful for more precise configurations.
- The count can be shown on the area model to demonstrate the total sum of square units, and can also be used to demonstrate skip counting.

Suggestions for Use

Sample Challenge Prompts

- What is the relationship between the dimensions of the rectangle and the total area? Find two ways to explain this relationship.
- Given a total area, find the dimensions. Can you find other dimensions that produce the same total area?
- Look at each line of the calculation. Where is that represented in the area model?
- What patterns do you notice in the total area calculation?

See all published activities for Area Model Introduction here.
For more tips on using PhET sims with your students, see Tips for Using PhET.

McGarry, July 2021