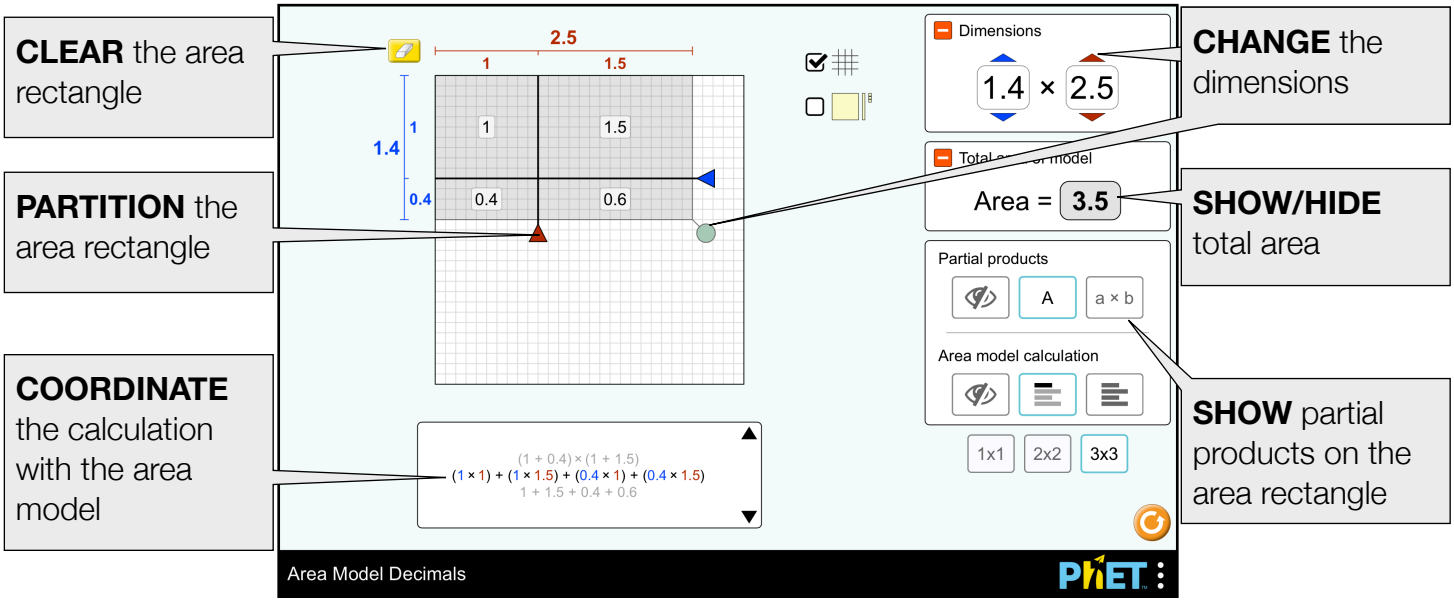
PhET Tips for Teachers

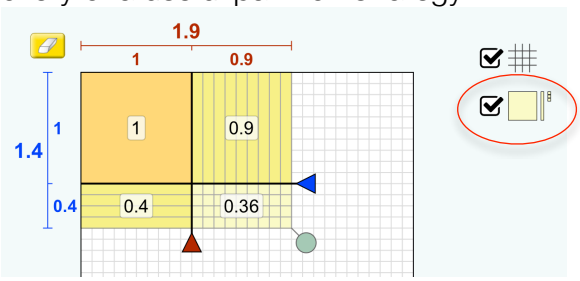
Area Model Decimals

Build rectangles of various sizes and relate multiplication to area. Partition a rectangle into smaller areas and discover new strategies for multiplying decimals.



Design Notes

- The area rectangle drag handle is useful for initial exploration, and the number spinners are useful for more precise configurations.
- Use the base-ten tiles for discovery of a useful partition strategy.



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.
- 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?
- When multiplying decimals smaller than 1, why is the total area smaller than the individual factors?
- Determine a useful location to partition factors when multiplying decimals larger than 1.

McGarry, July 2021

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

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