

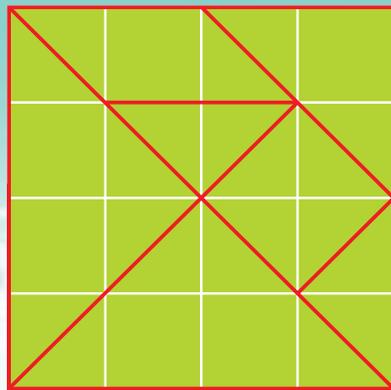
Tangram World

You need ★ a classmate

TECHNOLOGY Designers often create interesting products by taking existing items and adapting them for new purposes.

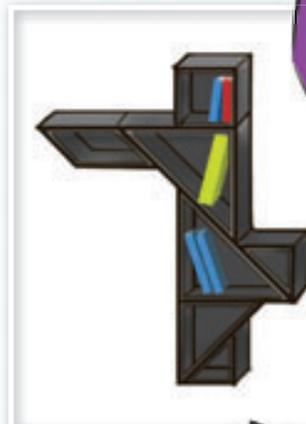
Activity

A tangram is an ancient Chinese puzzle created from a single square.

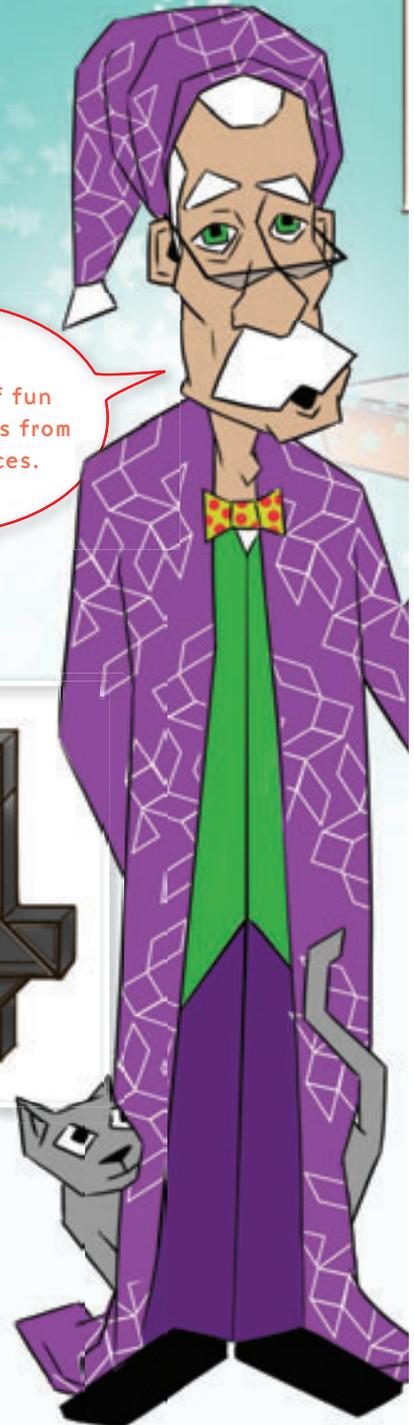


I've had many years of fun creating shapes from tangram pieces.

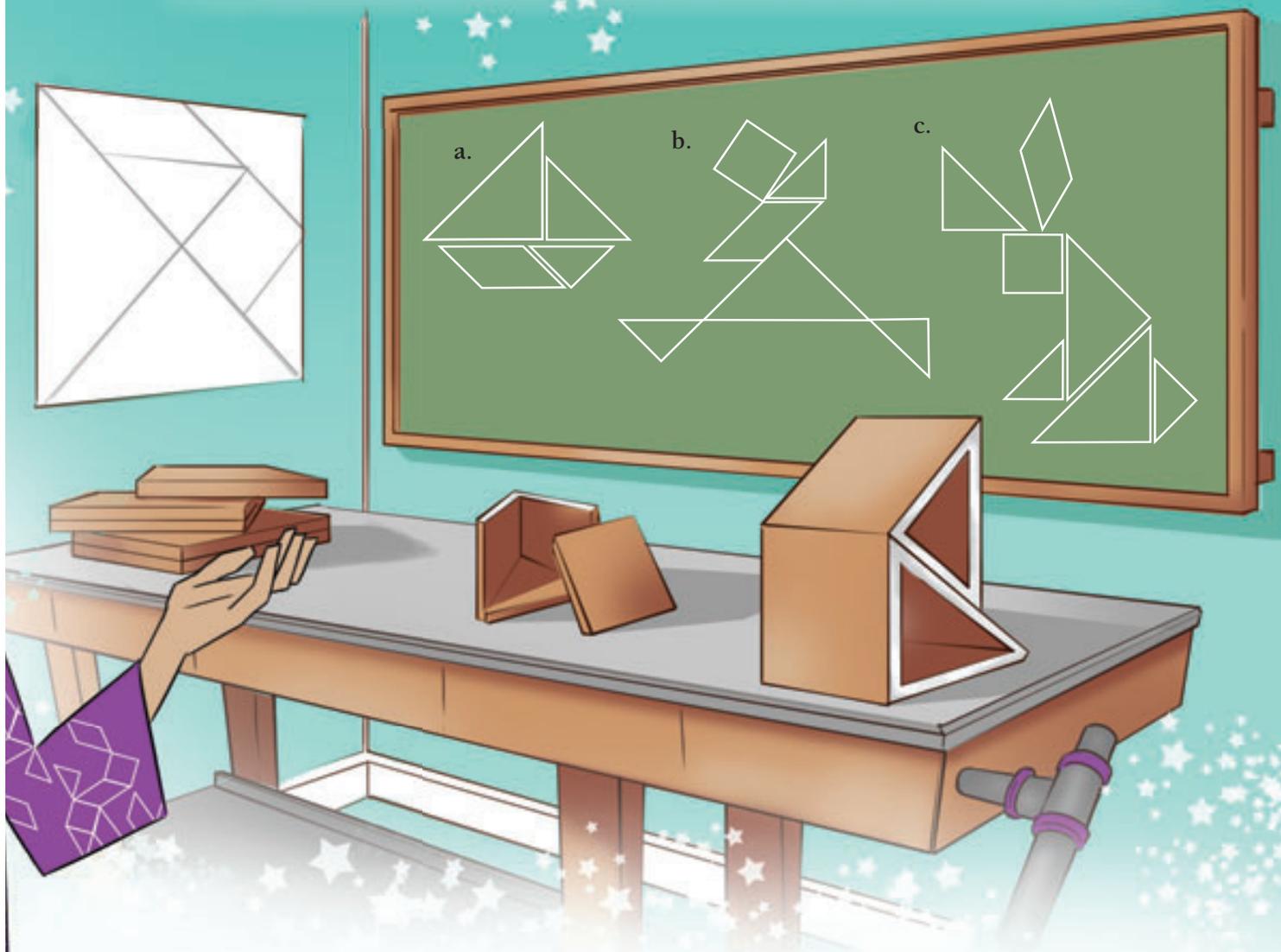
Jacob is looking on the Internet for shapes to make from tangram pieces. He comes across these interesting display units.



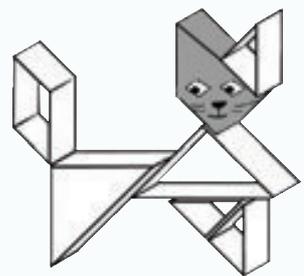
1. A complete set of tangram display-unit pieces costs \$320. Buyers can also order the display pieces separately so that they can design their own units. The cost of each piece is based on its size in proportion to the whole set.
 - a. How much would the seller charge for each display piece?
 - b. Discuss with a classmate how you made your decisions.



2. Some of the display units come in kits. How much should the seller charge for the designs shown below?



3. Jacob shows his dad the website. His dad decides to buy \$200 worth of display pieces.
- With a classmate, work out 5 combinations of pieces that he could buy.
 - Use 3 of these combinations to come up with 3 different designs.
4. Each tangram piece has a silver trim around its perimeter. Jacob thinks that shapes that have the same area will have the same perimeter.
- Find 2 different shapes that have the same perimeter.
 - Which shape has a perimeter that is half of another shape's perimeter?
 - Do shapes with the same area have the same perimeter?



Focus

Finding areas by counting squares and using fractions