

Homework & Practice 15-6

Use Appropriate Tools

Another Look!

When light hits a mirror, it reflects at the same angle as it hits. In the diagram shown, $\angle ABC$ has the same measure as $\angle CBD$, where \overline{BC} makes a right angle with the mirror.

Measure $\angle ABC$. Then, write and solve an equation to find the measure of $\angle DBE$.

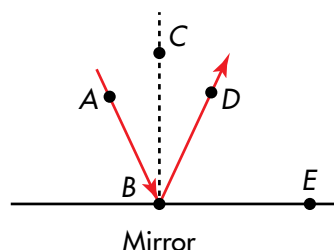
Tell how you can strategically choose a tool to solve the problem.

- I can decide which tool is appropriate.
- I can explain why it is the best tool to use.
- I can use the tool correctly.

The measure of $\angle ABC$ is 25° . The measure of $\angle CBD$ is also 25° and the sum of $\angle CBD$ and $\angle DBE$ is 90° .

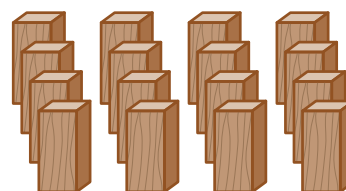
So, $25^\circ + d = 90^\circ$, $d = 90^\circ - 25^\circ = 65^\circ$.

The measure of $\angle DBE$ is 65° .



© MP.5 Use Appropriate Tools

Jason wants to set up blocks for a game. He wants to set up the blocks in an array, so there are the same number of rows as columns. He wants to use between 20 and 90 blocks. How can Jason set up the blocks? Use Exercises 1–2 to help solve.



1. What tool could Jason use? Explain how Jason could use the tool to find at least one way to set up the blocks.

When you **use appropriate tools**, you consider options before selecting a tool.

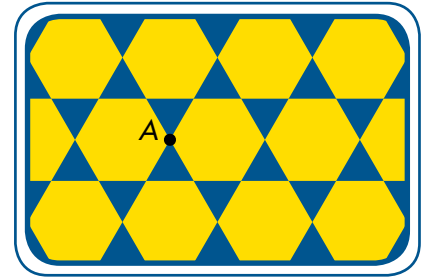
Available Tools
 Place-value blocks
 Fraction strips
 Rulers
 Grid paper
 Counters



2. What are all the ways Jason can set up the blocks?

Tiling

Marcus created the tile pattern shown. All the angles of each hexagon have the same measure and all the angles of each equilateral triangle have the same measure. Find the measure of each angle.



3. **MP.1 Make Sense and Persevere** What do you know and what do you need to find?

4. **MP.5 Use Appropriate Tools** What tool could you use to measure the angle of a hexagon? Explain how to use the tool you chose. What is the measure?

5. **MP.4 Model with Math** Write and solve an equation which could be used to find the measure of one angle of a triangle. What is the measure of the angle? Explain.

When you use appropriate tools, you use the tool you chose correctly.

