



Thinking Like a Mathematician

The Standards for Mathematical Practice (MP) help students learn to think like mathematicians—to apply mathematics to solve real-world problems, be resourceful, reason about numbers, and explain and defend their solutions and the strategies used to find the solution. When students apply MP.7, they look for patterns and structures to help them solve problems.

Students in sixth grade might use the information in the following table to find the number of yards that equals 24 feet. They can notice that 24 feet = $4 \times (6 \text{ feet})$, so the answer is $4 \times (2 \text{ yards}) = 8 \text{ yards}$.

| | | | | | |
|--------------|---|---|---|----|----|
| <i>Feet</i> | 3 | 6 | 9 | 15 | 24 |
| <i>Yards</i> | 1 | 2 | | | |

| Grade | Examples of MP.7: Look for and make use of structure. |
|-------|---|
| 6 | Students notice patterns that exist in ratio tables, recognizing both the additive and multiplicative properties. |
| 7 | Students routinely seek patterns or structures to model or solve problems. |
| 8 | Students examine patterns in tables and graphs to generate equations and describe relationships. |