Functions and Relations as Rules

If I asked students to determine the cost of 10 cold drinks at \$0.50 per drink, many might realize the cost would be \$5.00.

If I asked them how they got that answer, eventually, with prodding, someone might tell me they multiplied the number of cold drinks by \$0.50. That shortcut can be described by a rule

Cost = \$0.50 x number of cold drinks

$$c = .50n$$

or the way you see written it in your math book

$$y = .50x \text{ or } y = \frac{1}{2}x$$