## Functions and Relations as Rules

If I asked students to determine the cost of 10 cold drinks at $\mathbf{\$ 0 . 5 0}$ 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 $\mathbf{\$ 0 . 5 0}$. That shortcut can be described by a rule

$$
\text { Cost }=\$ 0.50 \times \text { number of cold drinks }
$$

$$
c=.50 n
$$

or the way you see written it in your math book

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

