

# Translating into Algebra

## Value Definitions

Racket Code	Algebra
<code>(define x 10)</code>	$x = 10$
<code>(define y (* x 2))</code>	$y = x \cdot 2$
<code>(define z (+ x y))</code>	
<code>(define age 14)</code>	
<code>(define months (* age 12))</code>	
<code>(define days (* months 30))</code>	
<code>(define hours (* days 24))</code>	
<code>(define minutes (* hours 60))</code>	

## Function Definitions

Racket Code	Algebra
<code>(define (area length width)   (* length width))</code>	$\text{area}(\text{length}, \text{width}) = \text{length} \cdot \text{width}$
<code>(define (circle-area radius)   (* pi (sqr radius)))</code>	
<code>(define (distance x1 y1 x2 y2)   (sqrt (+ (sqr (- x1 x2))            (sqr (- y1 y2)))))</code>	