

# Danger and Target Movement

**Directions:** Use the Design Recipe to write a function `update-danger`, which takes in the danger's x-coordinate and produces the next x-coordinate.

## Contract and Purpose Statement

*Every contract has three parts...*

<code>; update-danger :</code>	<code>Number</code>	<code>-&gt;</code>	<code>Number</code>
<i>function name</i>	<i>domain</i>		<i>range</i>

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what does the function do?

## Examples

*Write some examples, then circle and label what changes...*

(EXAMPLE ( update-danger      160 ) ( - 160 50 ) )

*function name*                      *input(s)*                      *what the function produces*

(EXAMPLE ( update-danger      -85 ) ( -85 50 ) )

*function name*                      *input(s)*                      *what the function produces*

## Definition

Write the definition, giving variable names to all your input values...

$$\begin{array}{c} \text{(define (update-danger } \underline{\hspace{2cm}} \underline{\hspace{2cm}} \text{ x)} \\ \hspace{1.5cm} \textit{function name} \hspace{1.5cm} \textit{variable(s)} \\ \text{( - x 50)} \\ \hline \hspace{15cm} \textit{what the function does with those variable(s)} \end{array}$$

**Directions:** Use the Design Recipe to write a function `update-target`, which takes in the danger's x-coordinate and produces the next x-coordinate.

## Contract and Purpose Statement

*Every contract has three parts...*

<b>; update-target :</b>	<b>Number</b>	<b>-&gt;</b>	<b>Number</b>
<i>function name</i>	<i>domain</i>		<i>range</i>

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*what does the function do?*

## Examples

Write some examples, then circle and label what changes...

(EXAMPLE ( update-target      130 ) ( + 130 50 ) )

*function name*                      *input(s)*                      *what the function produces*

(EXAMPLE ( update-target      -25 ) ( + -25 50 ) )

*function name*                      *input(s)*                      *what the function produces*

## Definition

Write the definition, giving variable names to all your input values...

```
(define (update-target x)  
      (+ x 50)  
      )
```

*what the function does with those variable(s)*