

$$\begin{array}{l}
 \text{APP } \underline{\text{fun } a \rightarrow 2+a \cdot 3 \Rightarrow \text{fun } a \rightarrow 2+a \cdot 3} \quad 1 \Rightarrow 1 \quad \text{OP } \underline{\text{fun } a \rightarrow 2+a \cdot 3} \quad 1 \Rightarrow 1 \quad \text{OP } \underline{2 \Rightarrow 2} \quad \text{OP } \underline{1 \Rightarrow 1} \quad \text{OP } \underline{3 \Rightarrow 3} \quad \text{OP } \underline{1 \cdot 3 = 3} \quad \text{OP } \underline{2+3 = 5} \\
 \text{OP } \underline{8 \Rightarrow 8} \quad \text{fun } a \rightarrow 2+a \cdot 3 \quad 1 \Rightarrow 5 \quad 8-5=3 \\
 \text{LD } \underline{\text{fun } a \rightarrow 2+a \cdot 3 \Rightarrow \text{fun } a \rightarrow 2+a \cdot 3} \quad 8-(\text{fun } a \rightarrow 2+a \cdot 3) \quad 1 \Rightarrow 3 \\
 \text{let } f = \text{fun } a \rightarrow 2+a \cdot 3 \text{ in } 8-f \quad 1 \Rightarrow 3
 \end{array}$$

$\text{eval}("3+6") = \text{call Function } \boxed{+} \text{ with } 3 \text{ and } 6$   
 ↑ no real mathematical plus



OP  $\frac{3 \Rightarrow 3 \quad 6 \Rightarrow 6 \quad 3+6 \Rightarrow 9}{3+6 \Rightarrow 9} \quad \text{fun } x \rightarrow x \cdot 4 \Rightarrow \text{fun } x \rightarrow x \cdot 4$

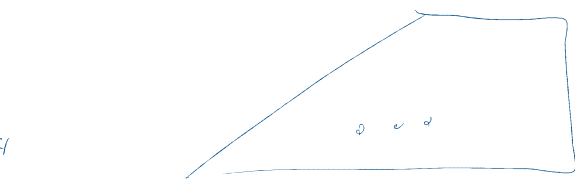
TU  $\frac{(3+6, \text{fun } x \rightarrow x \cdot 4) \Rightarrow (9, \text{fun } x \rightarrow x \cdot 4)}{\text{let } x = (3+6, \text{fun } x \rightarrow x \cdot 4) \text{ in } (\text{snd } x) (\text{fst } x) \Rightarrow 36}$

LD  $\frac{\text{let } x = (3+6, \text{fun } x \rightarrow x \cdot 4) \text{ in } (\text{snd } x) (\text{fst } x) \Rightarrow 36}{\text{let } x = (3+6, \text{fun } x \rightarrow x \cdot 4) \text{ in } (\text{snd } x) (\text{fst } x) \Rightarrow 36}$

gD  $\frac{f = \text{fct} \quad \text{fct} \Rightarrow \text{fun } x \rightarrow \text{match } x \text{ with } (a,b) \rightarrow b}{\text{snd} \Rightarrow \text{fct} \quad (9, \text{fun } x \rightarrow x \cdot 4) \Rightarrow (9, \text{fun } x \rightarrow x \cdot 4)} \quad \text{pm } (9, \text{fun } x \rightarrow x \cdot 4) \Rightarrow (9, \text{fun } x \rightarrow x \cdot 4) \quad \text{fun } x \rightarrow x \cdot 4 \Rightarrow \text{fun } x \rightarrow x \cdot 4$

APP  $\frac{\text{snd} \Rightarrow \text{fct} \quad (9, \text{fun } x \rightarrow x \cdot 4) \Rightarrow (9, \text{fun } x \rightarrow x \cdot 4)}{\text{snd } (9, \text{fun } x \rightarrow x \cdot 4) \Rightarrow \text{fun } x \rightarrow x \cdot 4} \quad \text{match } (9, \text{fun } x \rightarrow x \cdot 4) \text{ with } (a,b) \rightarrow b \Rightarrow \text{fun } x \rightarrow x \cdot 4$

APP  $\frac{\text{snd } (9, \text{fun } x \rightarrow x \cdot 4) \Rightarrow \text{fun } x \rightarrow x \cdot 4}{(\text{snd } (9, \text{fun } x \rightarrow x \cdot 4)) (\text{fst } (9, \text{fun } x \rightarrow x \cdot 4)) \Rightarrow 36}$



APP  
 $\text{fst}(9, \text{fun } x \rightarrow x \rightarrow 4) \Rightarrow 9$

OP  $9 \Rightarrow 9 \quad 4 \Rightarrow 4 \quad 9 \otimes 4 = 36$

$9 \cdot 4 \Rightarrow 36$