# Problem A- Design Tool

I

* Area
* rL //length value in ratio
* rW // width value in ratio

P

-Ratio = rL / rW

- W = sqrt( area / ratio )

- L = ratio \* W

- Perimeter = 2(L) + 2(W)

O

* L and W
* Perimeter

# Problem B- Design Tool

I

Knives (non-negative integer less than 1,000,000)

P

n - 100 = tierBNum

n – 200 = tierCNum

n\*(5) = tierAPay

tierATotal + x\*(10) = tierBPay

tierATotal + tierB total + x\*(15) = tierCPay

O

“You made “+ amountMade + “ selling knives this month.”

# Problem C- Design Tool

I

cardAmount

itemA

itemB

itemC

P

leftover = cardAmount;

if(cardAmount - itemA >= 0 && cardAmount - itemA < leftOver){leftover = itemA}

if(cardAmount - itemB >= 0 && cardAmount - itemB < leftOver){leftover = itemB}

if(cardAmount - itemC >= 0 && cardAmount - itemC < leftOver){leftover = itemC}

if(cardAmount - itemAB >= 0 && cardAmount - itemAB < leftOver){leftover = itemAB}

if(cardAmount – itemAC >= 0 && cardAmount - itemAC < leftOver){leftover = itemAC}

if(cardAmount - itemBC >= 0 && cardAmount - itemBC < leftOver){leftover = itemBC}

if(cardAmount - itemABC >= 0 && cardAmount - itemABC < leftOver){leftover = itemABC}

0

leftOver