

four numbers that sum to 130

$$a \rightarrow 31$$

$$b \rightarrow 32$$

$$c \rightarrow 33$$

$$d \rightarrow 34$$

20, 21, 22, 23



41

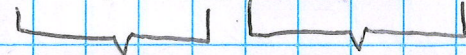
45



86

not big enough

30, 31, 32, 33



61

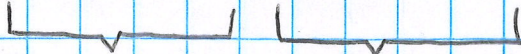
65



126

really close

31, 32, ³33, 34



63

67



130

used a process
of trial and
error

Thea

four numbers sum to -38

$$a \rightarrow -8$$

$$b \rightarrow -9$$

$$c \rightarrow -10$$

$$d \rightarrow -11$$

$$\begin{array}{l} -5, -4, -3, -2 \\ \underbrace{\hspace{1.5cm}} \quad \underbrace{\hspace{1.5cm}} \\ -9 \qquad \qquad -5 \\ \underbrace{\hspace{3cm}} \\ -14 \end{array}$$

not close

$$\begin{array}{l} -5, -6, -7, -8 \\ \underbrace{\hspace{1.5cm}} \quad \underbrace{\hspace{1.5cm}} \\ -11 \qquad \qquad -15 \\ \underbrace{\hspace{3cm}} \\ -26 \end{array}$$

getting closer

$$\begin{array}{l} -6, -7, -8, -9 \\ \underbrace{\hspace{1.5cm}} \quad \underbrace{\hspace{1.5cm}} \\ -13 \quad -17 \\ \underbrace{\hspace{3cm}} \\ 30 \end{array}$$

I've just noticed all the finishing pairs are 4 away from each other

$$\begin{array}{l} -8, -9, -10, -11 \\ \underbrace{\hspace{1.5cm}} \quad \underbrace{\hspace{1.5cm}} \\ -17 \qquad \qquad -21 \\ \underbrace{\hspace{3cm}} \\ -38 \\ \underline{\underline{\quad}} \end{array}$$

I used the trial and error method

$$a+b+c = 10+d$$

$$1, 2, 3 \neq 10 + 4$$

$$\underbrace{4, 5, 6}_{15} \neq \underbrace{10+7}_{17}$$

$$\underbrace{5, 6, 7}_{18} = \underbrace{10+8}_{18}$$

$$a=5$$

$$b=6$$

$$c=7$$

$$d=8$$

what is $(a+d) - (b+c)$? why?

$$5+8 = 13$$