

Strategies for Solving Subtraction Problems

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Subtraction problems can be solved in different ways.

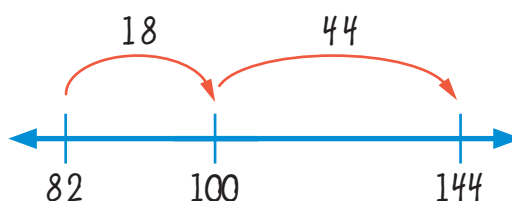
$$144 - 82 = \underline{\hspace{2cm}}$$

Adding Up

Bridget solved this problem by adding up. She started at 82 and added up to get to 144. She used 100 as a landmark number.

Bridget's Solution

$$\begin{aligned} 82 + \underline{\hspace{1cm}} &= 144 \\ 82 + 18 &= 100 \\ 100 + 44 &= 144 \end{aligned}$$



Bridget: The answer is the total of the two jumps from 82 to 144.

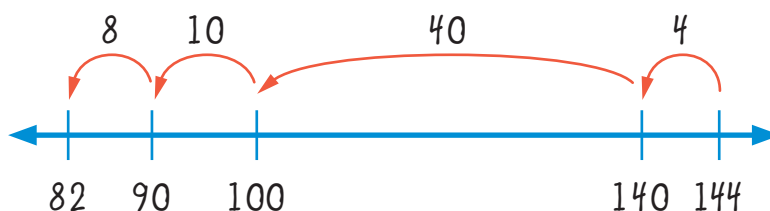
$$18 + 44 = \mathbf{62}$$

Subtracting Back

Keith solved the problem by subtracting back. He started at 144 and subtracted back to get to 82.

Keith's Solution

$$\begin{aligned} 144 - \underline{\hspace{1cm}} &= 82 \\ 144 - 4 &= 140 \\ 140 - 40 &= 100 \\ 100 - 10 &= 90 \\ 90 - 8 &= 82 \end{aligned}$$



Keith: The answer is the total of all the jumps from 144 back to 82.

$$4 + 40 + 10 + 8 = \mathbf{62}$$

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This problem can be solved in different ways.

$$\begin{array}{r} 924 \\ - 672 \\ \hline \end{array}$$

Adding Up

Jung solved this problem by starting at 672 and adding up to 924.

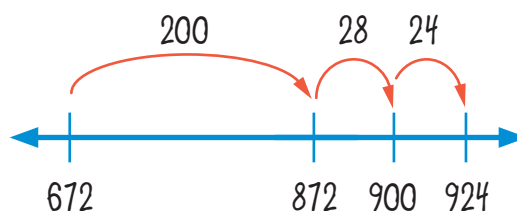
Jung's Solution

$$672 + \underline{\quad} = 924$$

$$672 + \underline{200} = 872$$

$$872 + \underline{28} = 900$$

$$900 + \underline{24} = 924$$



Jung: The answer is the total of all the jumps from 672 up to 924.

$$200 + 28 + 24 = \mathbf{252}$$

Subtracting Back

Gil solved the problem by starting at 924 and subtracting back to 672.

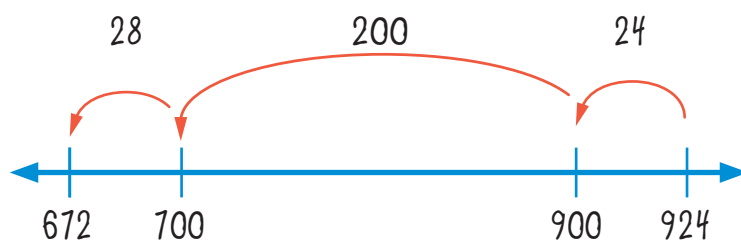
Gil's Solution

$$924 - \underline{\quad} = 672$$

$$924 - \underline{24} = 900$$

$$900 - \underline{200} = 700$$

$$700 - \underline{28} = 672$$



Gil: The answer is the total of all the jumps from 924 back to 672.

$$24 + 200 + 28 = \mathbf{252}$$

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Subtracting One Number in Parts

$$144 - 82 = \underline{\quad}$$

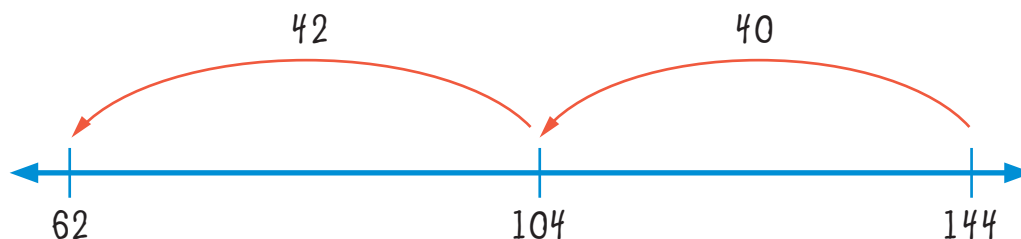
Kim solved this problem by starting with 144 and subtracting 82 in parts.

Kim's Solution

I started at 144 on the number line.

I subtracted 40 and landed on 104. $144 - 40 = 104$

I subtracted 42 and landed on 62. $104 - 42 = 62$



The answer
is the number
where I ended.
 $144 - 82 = \mathbf{62}$

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$$\begin{array}{r} 924 \\ - 672 \\ \hline \end{array}$$

Arthur solved this problem by starting with 924 and subtracting 672 in parts.

Arthur's Solution

I started at 924.

I subtracted 600 and landed on 324.

$$924 - 600 = 324$$

I subtracted 20 and landed on 304.

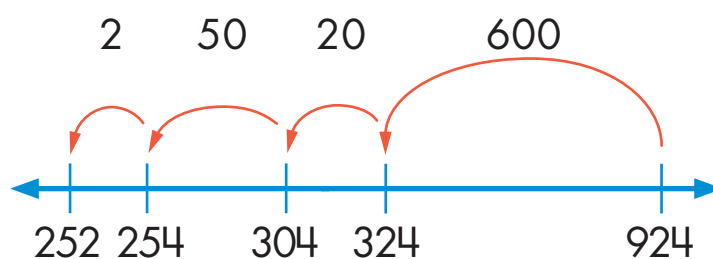
$$324 - 20 = 304$$

I subtracted 50 and landed on 254.

$$304 - 50 = 254$$

Arthur: *Then I subtracted 2 and landed on 252.*

$$254 - 2 = 252$$



The answer is the number where I landed.

$$924 - 672 = \mathbf{252}$$



How would you solve these problems?