Division Strategy

Repeated Subtraction

30÷5=

30-5=25

25-5=20

20-5=15

15-5=10

10-5=5

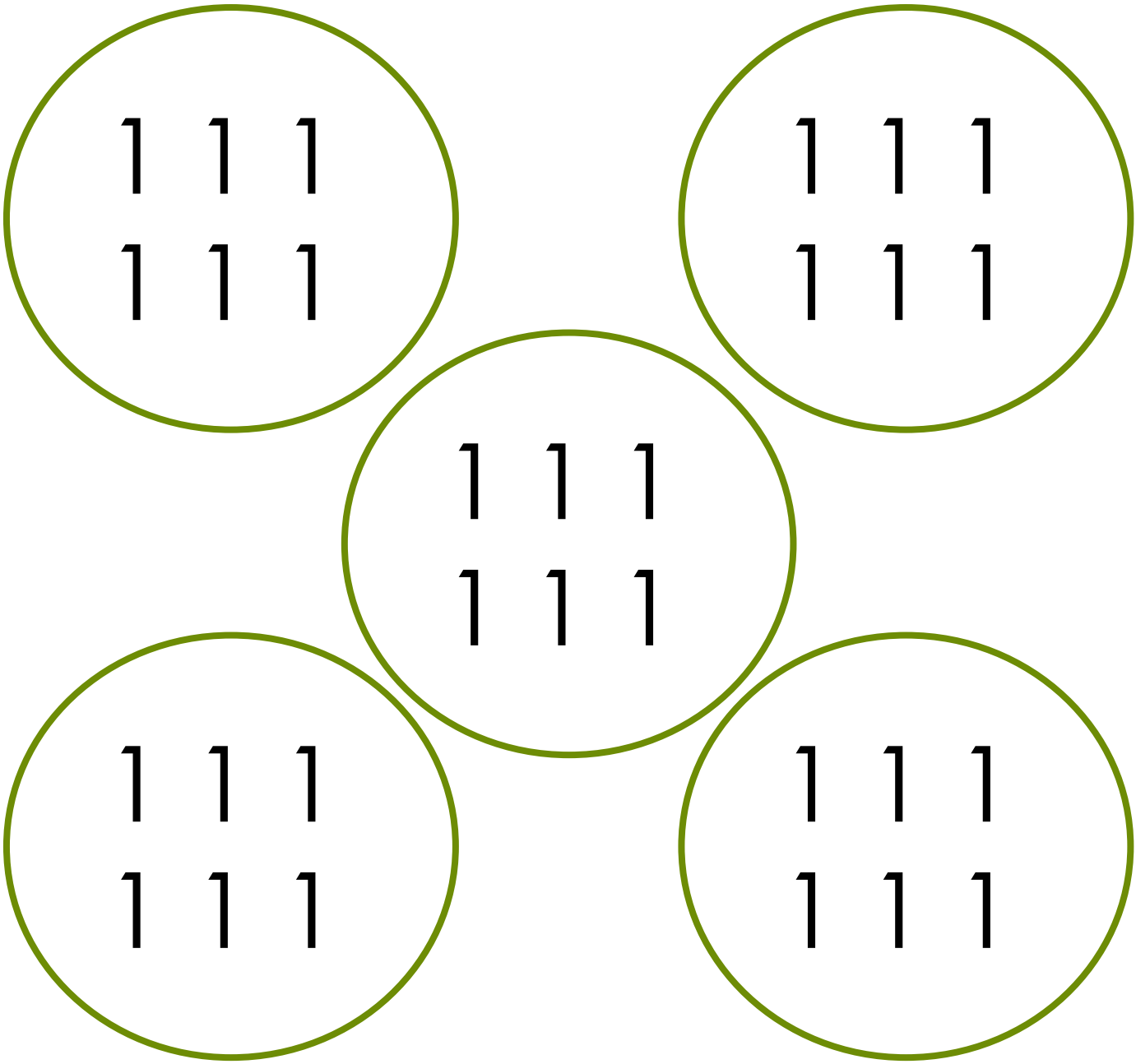
5-5=0

"I keep taking away 5 until I get to 0. I did this six times so I know that 30÷5=6.

Division Strategy

Sharing/Dealing Out

30÷5=



"I made 5 circles and put a "1" in each circle while counting to 30. Each circle received six 1s.

Division Strategy

Multiplying Up

384÷16=

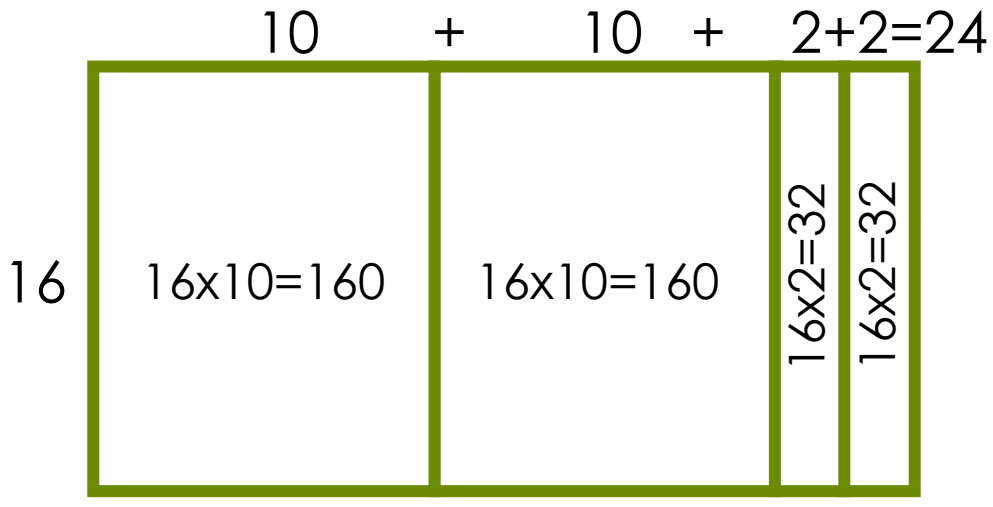
10 x16=160
10 x16=160
> **320**

384-320=64

2 x16= 32
2 x16= 32
> **64**

320+64=384

24

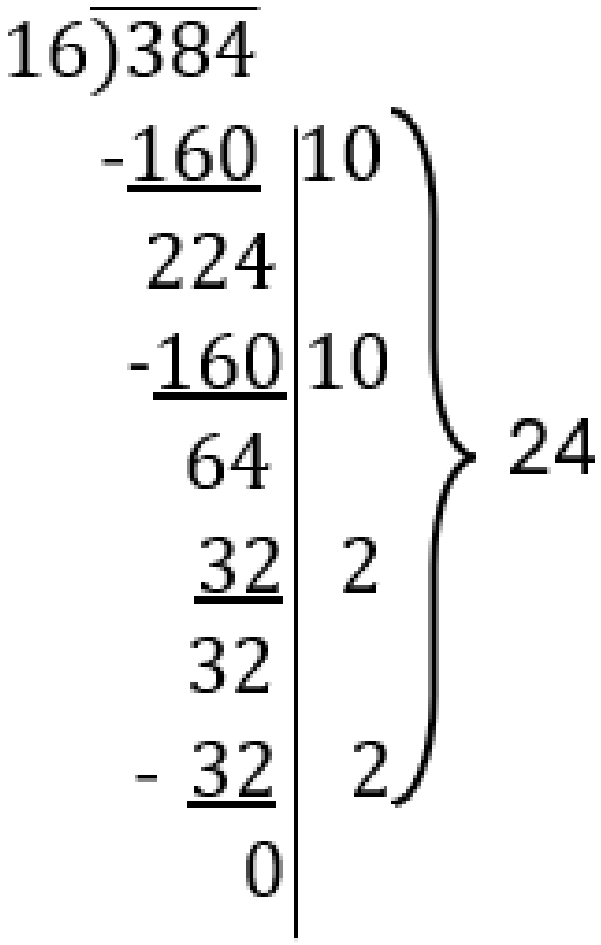


"I used multiplication with friendly numbers and the divisor (16) to build up to the dividend (384). The answer is the sum of my friendly numbers."

Division Strategy

Partial Quotients

384÷16=



"I used friendly numbers as quotients until I got to 0 Then I added them all together to get the answer.

Division Strategy

Proportional Reasoning

384÷16=

384÷16

(384÷2) ÷ (16÷2) =

192 ÷ 8

(192 ÷ 2) ÷ (8÷2)=

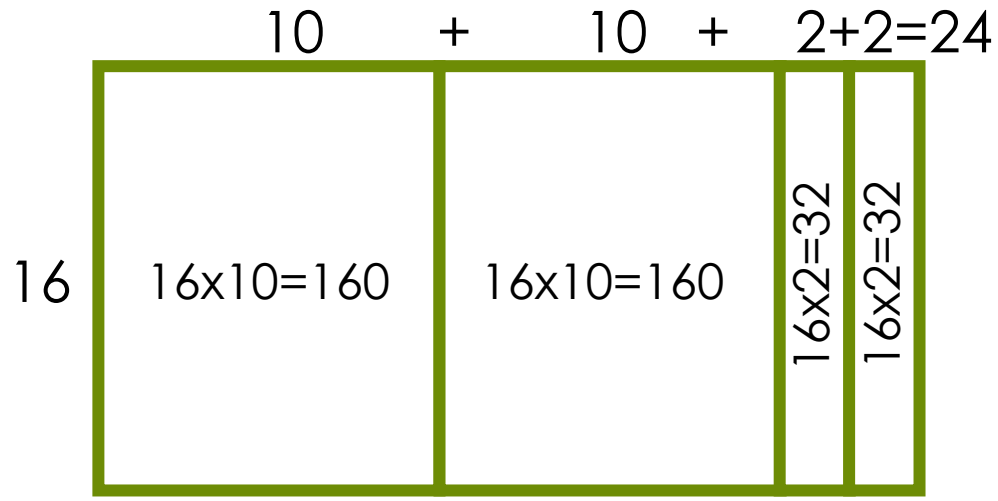
96 ÷ 4

(96 ÷ 2) ÷ (4÷2)=

48 ÷ 2 =24

"I made this a friendly problem by doubling one number and halving the other until I can solve the equation in my head .

Tool Kit 



Open Array or Area Model

Divisor

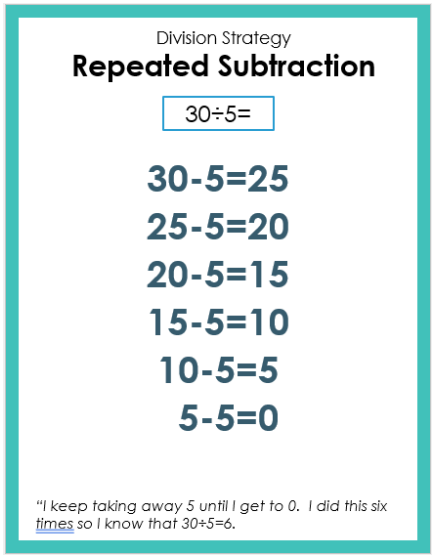
$$384 \div 16 = 24$$

Dividend Quotient

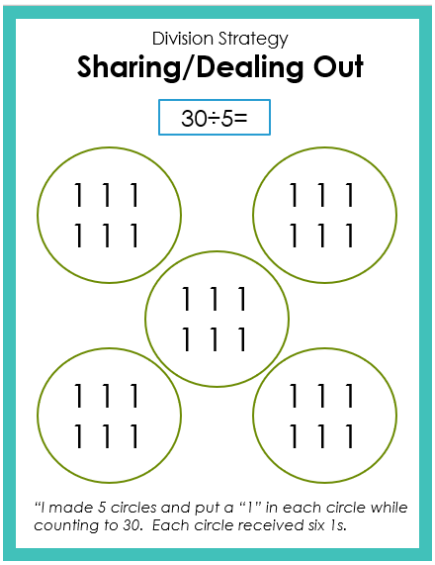
$$16\overline{)384}\quad 24$$

Divisor Dividend Quotient

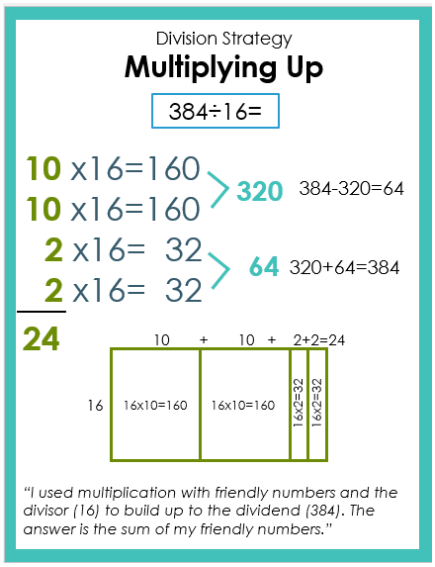
Division Strategies



This is an entry level strategy for division and is like Sharing/Dealing out. More information can be found on page 254 and 287 of "Number Talks: Whole Number Computation" by Sherry Parrish.

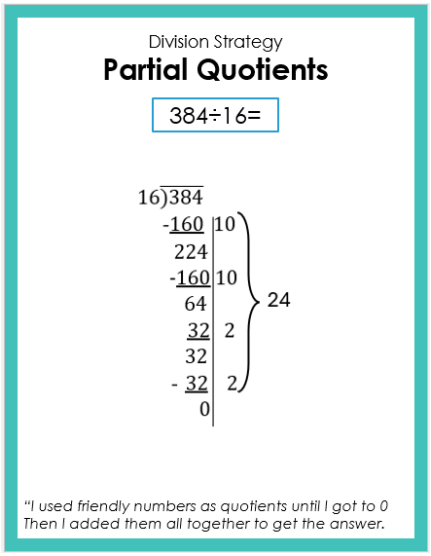


This is a beginning strategy for division and is similar to repeated subtraction. More information can be found on page 254 and 287of "Number Talks: Whole Number Computation" by Sherry Parrish.

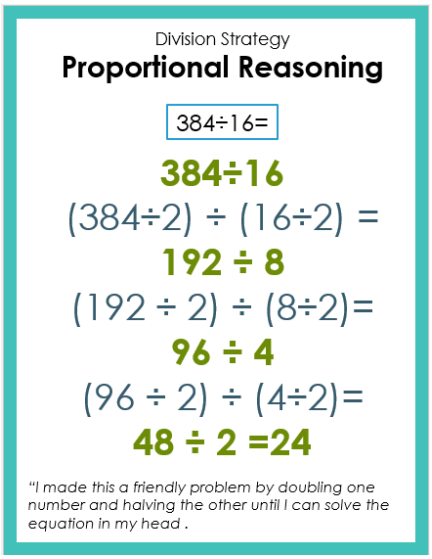


This strategy is like using Adding Up to Subtract. An area model (open array) can be used to illustrate this strategy and link multiplication and division. More information can be found on page 258 and 293 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number talks can be found starting on page 295.

Division Strategies
Page 2



This strategy uses **partial products** and is like the Multiplying Up strategy. More information can be found on page 258 and 288 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number talks can be found starting on page 290.



This strategy is similar to the Doubling and Halving strategy for multiplication. More information can be found on page 259 and 298 of "Number Talks: Whole Number Computation" by Sherry Parrish. Number talks can be found starting on page 299.