MATH STRATEGIES FOR THIRD GRADE

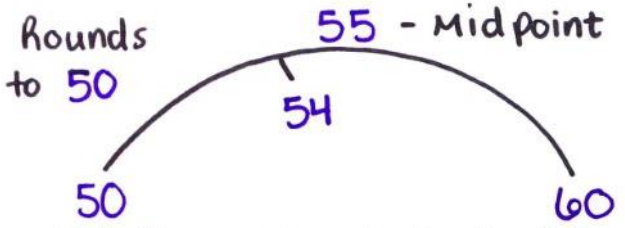
A PARENT'S GUIDE TO THIRD GRADE STANDARDS

ROUNDING TO NEAREST 10 AND 100

(TO THE NEAREST TEN)

number : 54

Hill Strategy

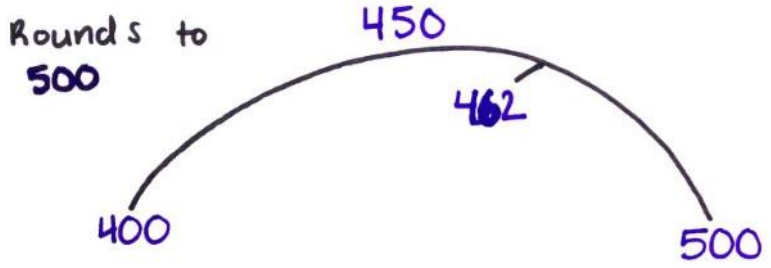


If the number is to the left of the Midpoint, leave it alone. If it is to the right, go up.

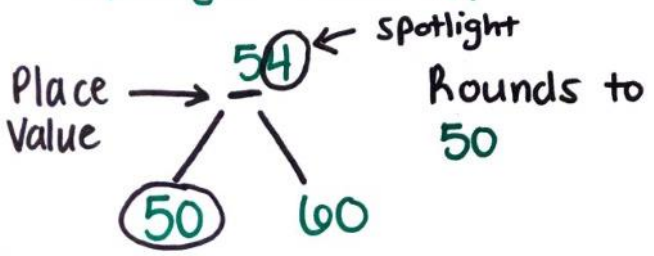
(TO THE NEAREST HUNDRED)

number : 462

Hill Strategy

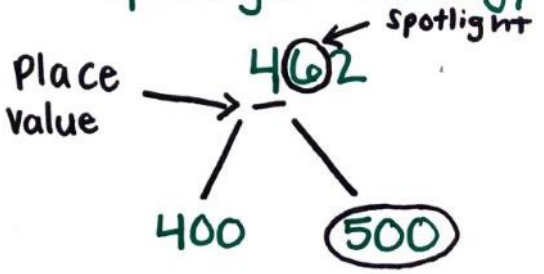


Spotlight Strategy



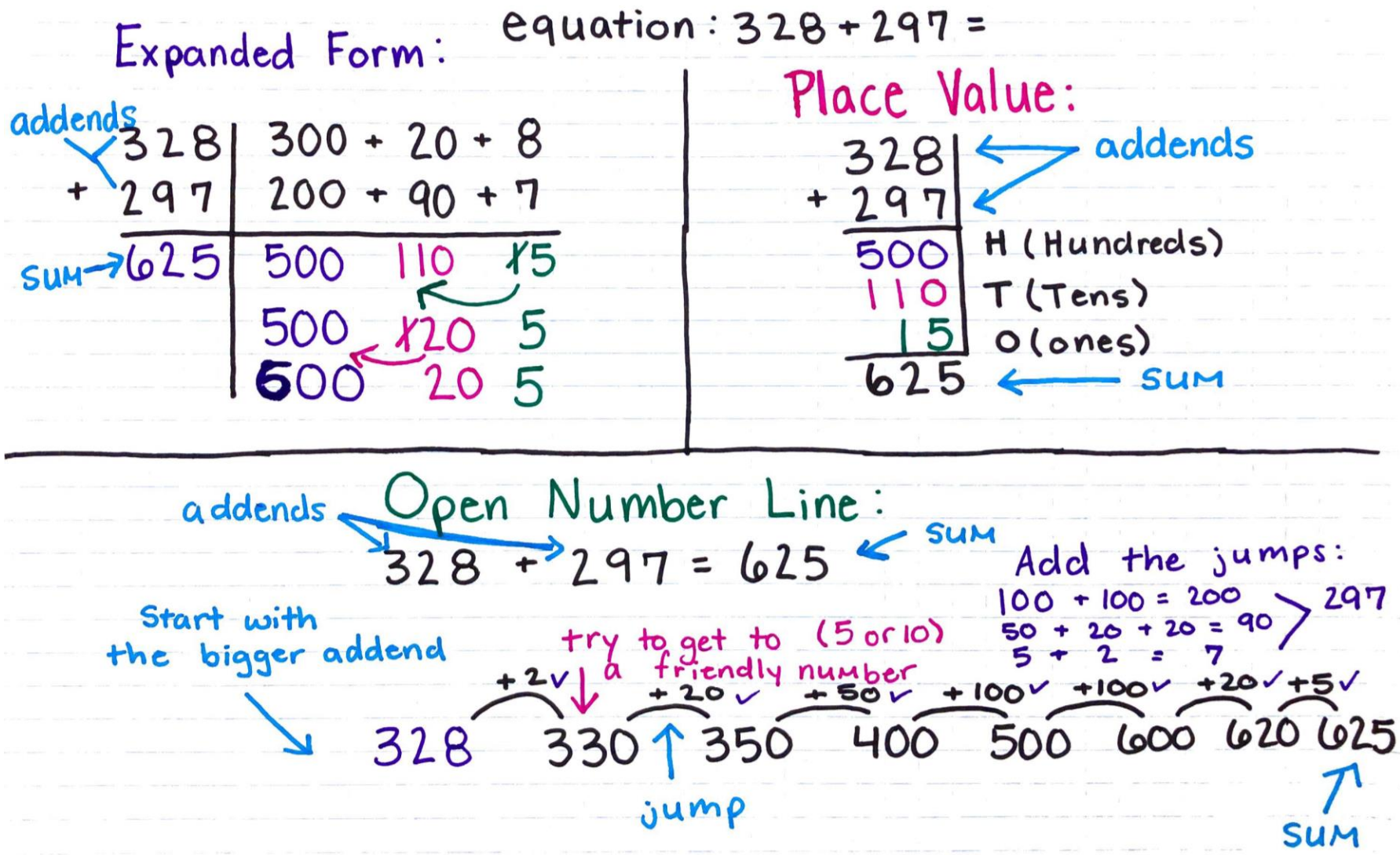
1. Find place value & underline
2. Circle the number to the right
3. If number is 4 or less, leave it alone. If 5 or higher, go up.

Spotlight Strategy

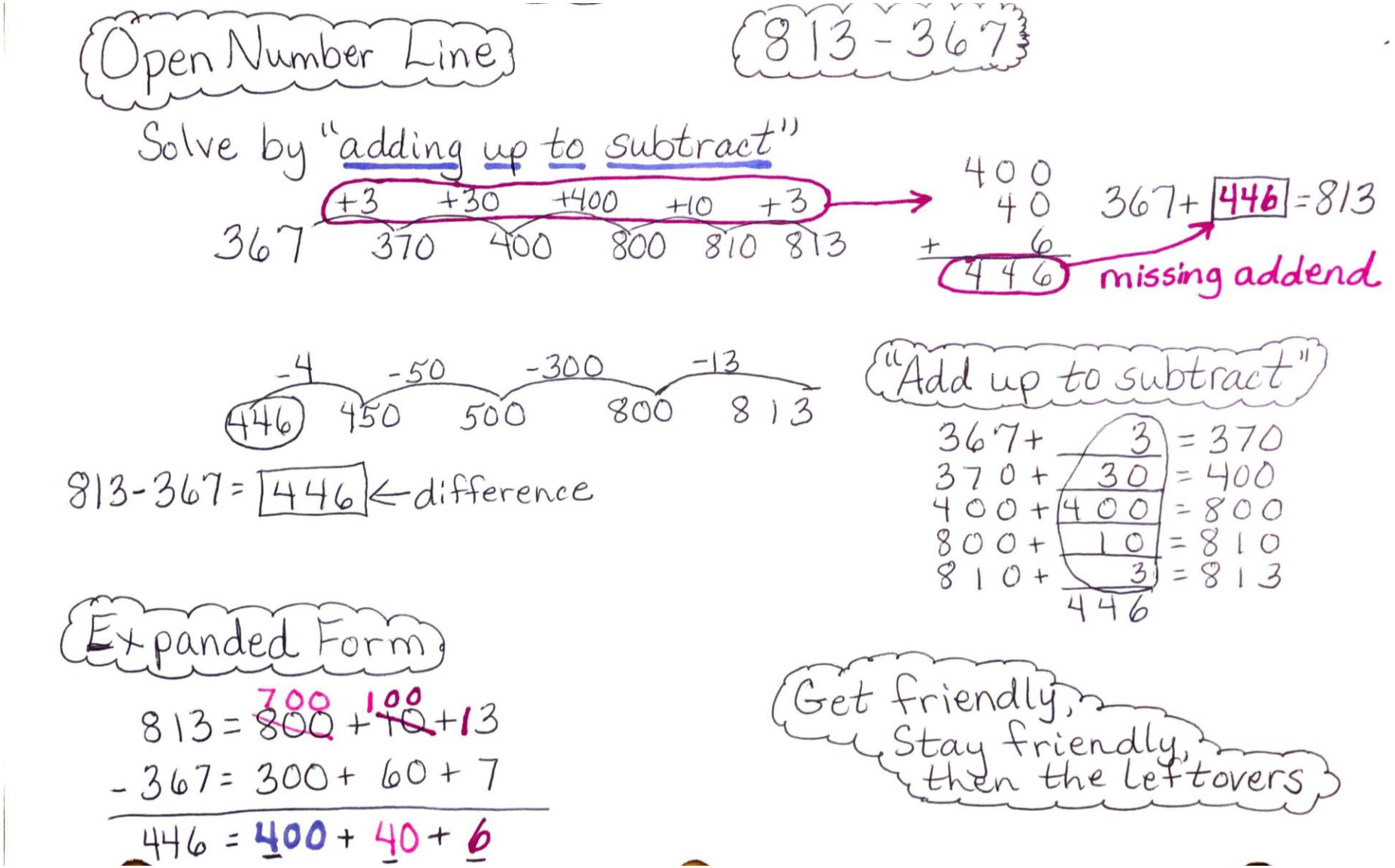


Rounds up to 500

ADDITION WITHIN 1,000



SUBTRACTION WITHIN 1,000



MULTIPLICATION

Tower

7×8 or **56÷8**

×	●●●●● ●●●
1	8
2	16
3	24
4	32
5	40
6	48
7	56

×	●●●●● ●●●
5	40
6	48
7	56

Shortcut for larger factors... find a friendly fact you know

Repeated Addition

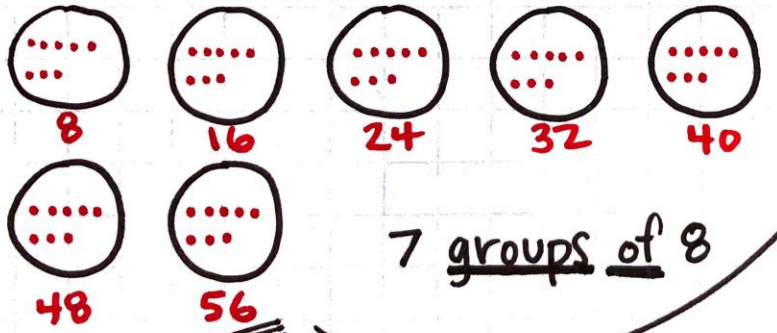
The first factor tells you the number of addends ← **7×8** → The second factor tells you what the addend is

8 + 8 + 8 + 8 + 8 + 8 + 8 = 56

16 24 32 40 48

Equal Groups

7×8 =



7 groups of 8

The total number inside each group is the product

The product of 7×8 is 56.

DIVISION

Tower

7×8 or 56÷8

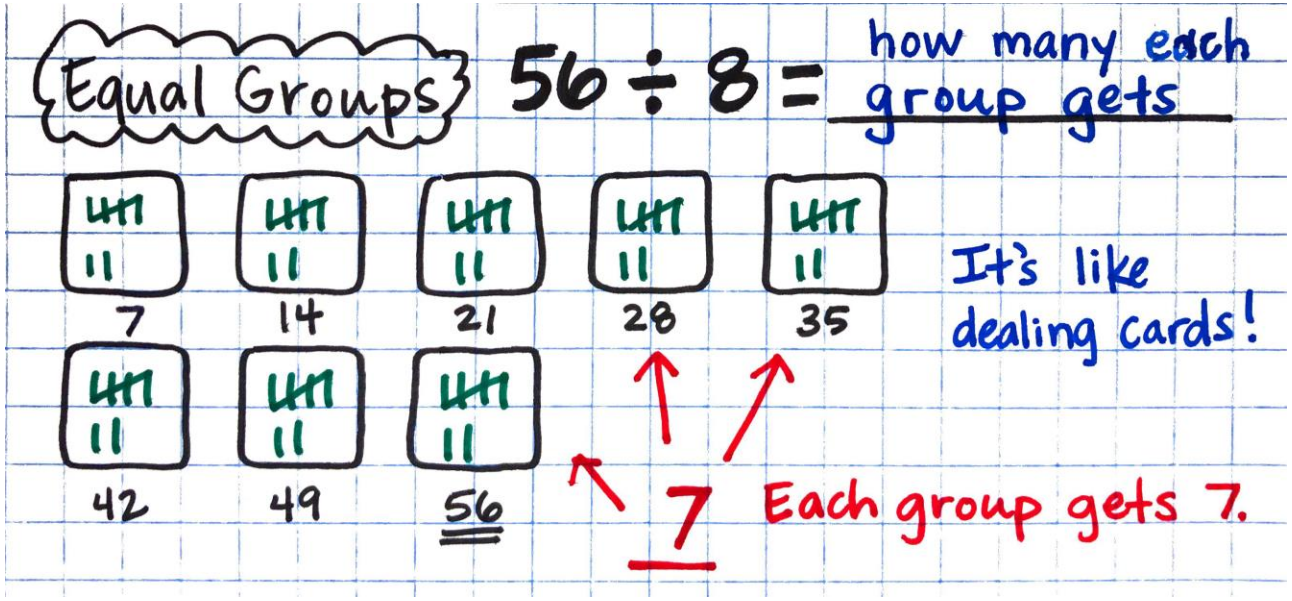
×	●●●●● ●●●
1	8
2	16
3	24
4	32
5	40
6	48
7	56

×	●●●●● ●●●
5	40
6	48
7	56

Shortcut for larger factors... find a friendly fact you know

Equal Groups

56 ÷ 8 = how many each group gets



Dividend: ← **56 ÷ 8** → Divisor: amount to be subtracted repeatedly

Total amount

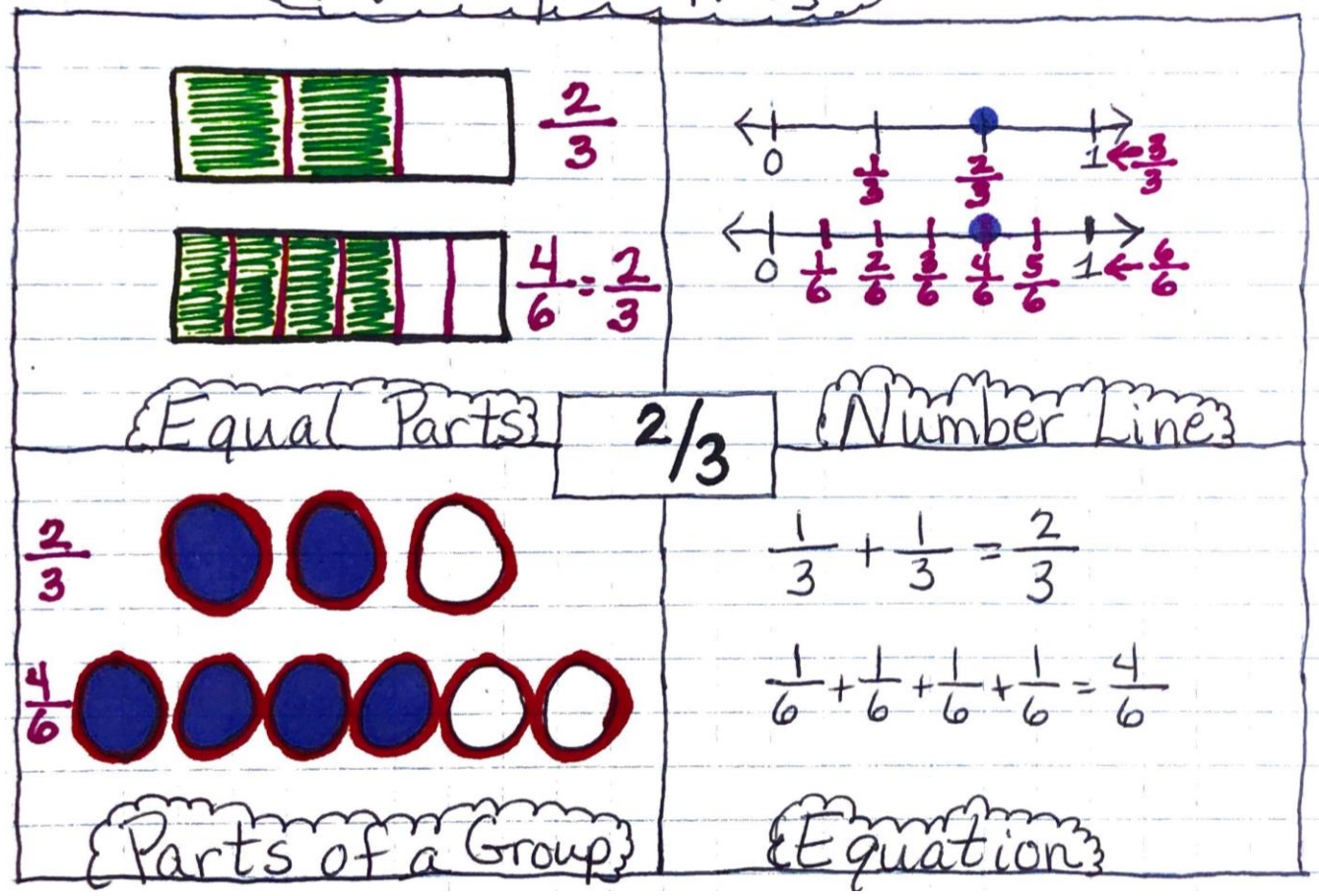
Repeated Subtraction

①	②	③	④	⑤	⑥	⑦
56	48	40	32	24	16	8
− 8	− 8	− 8	− 8	− 8	− 8	− 8
48	40	32	24	16	8	0

Your quotient will be the number of times you subtracted 8 from 56 to reach 0. 56 ÷ 8 = **7**

FRACTIONS

Representing a Fraction In Multiple Ways



2 ← numerator
3 ← denominator

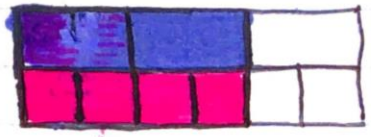
3 = 6/2 equivalent fraction

↑ whole number

Comparing Fractions

$\frac{1}{2} > \frac{1}{3}$ $\frac{2}{4} < \frac{3}{4}$

$\frac{2}{3} = \frac{4}{6}$ equivalent fractions



AREA

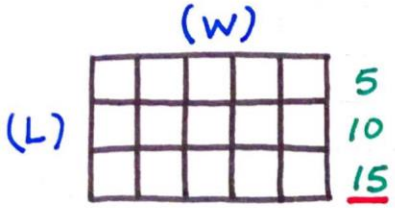
Formula:

$A = L \times W$

Area = The number of square units that covers a shape or figure.

Square Unit = A unit of measurement that determines the area of a figure (14 squared feet or 14 ft^2)

Tiling = When you fit individual tiles together with no gaps of overlaps to fill a space



Count the boxes/units!

Area = 15 square units

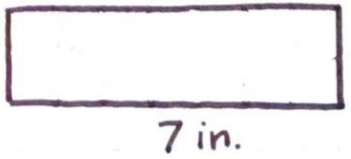
or

Multiply the length times width

$A = L \times W$

$A = 3 \times 5$

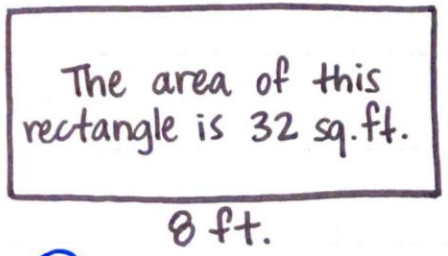
$A = 15$ square units



$A = L \times W$

$A = 2 \times 7$

$A = 14 \text{ in.}^2$



Solve for L!

$A = L \times W$

$32 = L \times 8$

$32 = 4 \times 8$

or

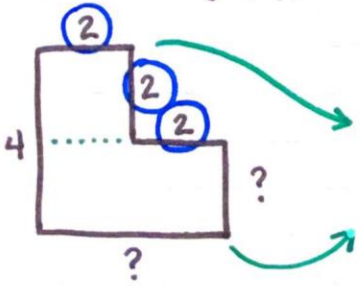
$A \div W = L$

$32 \div 8 = L$

$32 \div 8 = 4$

The length (L) is 4 ft.

Notice the L is NOT squared.



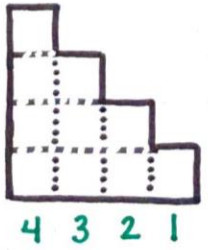
Find the area!

$2 \times 2 = 4$

$2 \times 4 = 8$

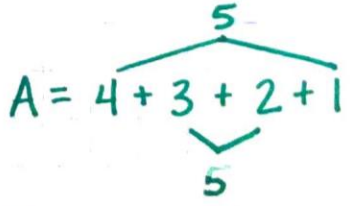
$8 + 4 = 12$

$A = 12 \text{ u}^2$



Tiling!

Add up all of the tiles.



$A = 5 + 5$

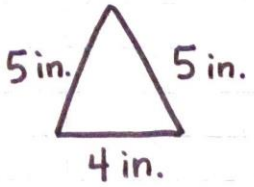
$A = 10$ units squared

PERIMETER

Perimeter = The sum of the lengths of the sides of a shape.

Perimeter =

L + W + L + W



Add up all the sides!

5 + 5 + 4

10 + 4 = 14

P = 14 in.

If an object is a square, all sides are known because all sides are equal.

8 × number of sides

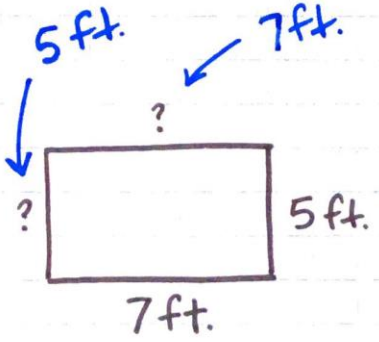
8 × 4 = 32

or

8 + 8 + 8 + 8

16 + 16 = 32

P = 32 ft.

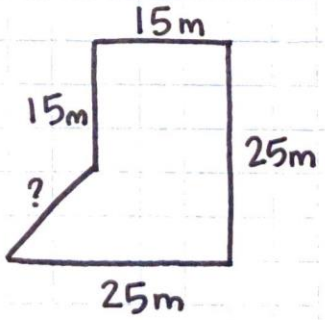


Congruent sides are equal. Therefore, All sides are known in this example.

5 + 7 + 5 + 7

10 + 14 = 24

P = 24 ft.



P = 95m

Add the known sides and then subtract from total perimeter to find the unknown side.

15 + 15 + 25 + 25

30 + 50 = 80

95 − 80 = 15

or

80 + 15 = 95

ELAPSED TIME

Missing end time

7:15 — 4h 15m — ?

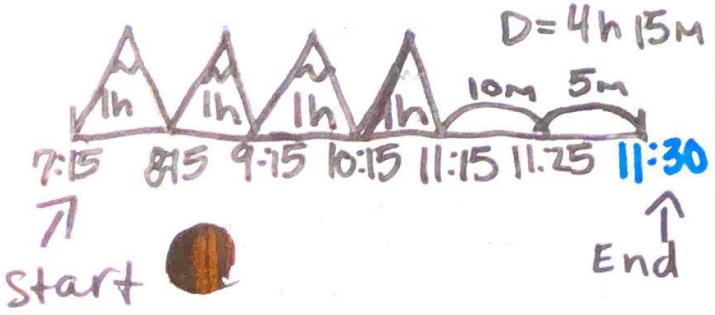
Missing duration

12:23 — ? — 6:51

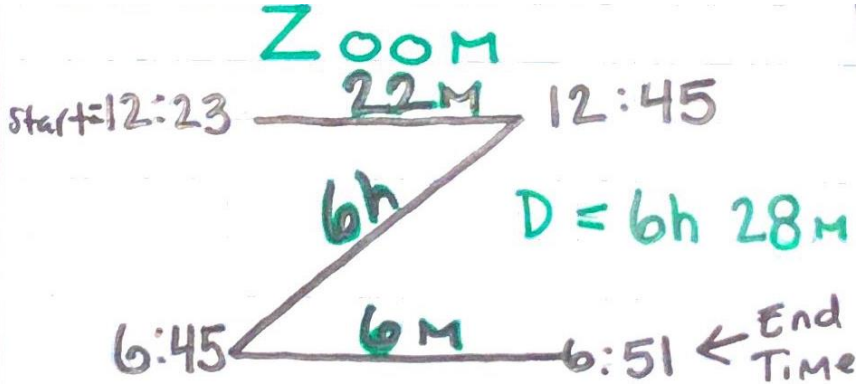
Missing start time

? — 2h 6m — 3:25

Mountains, Hills, Pebbles



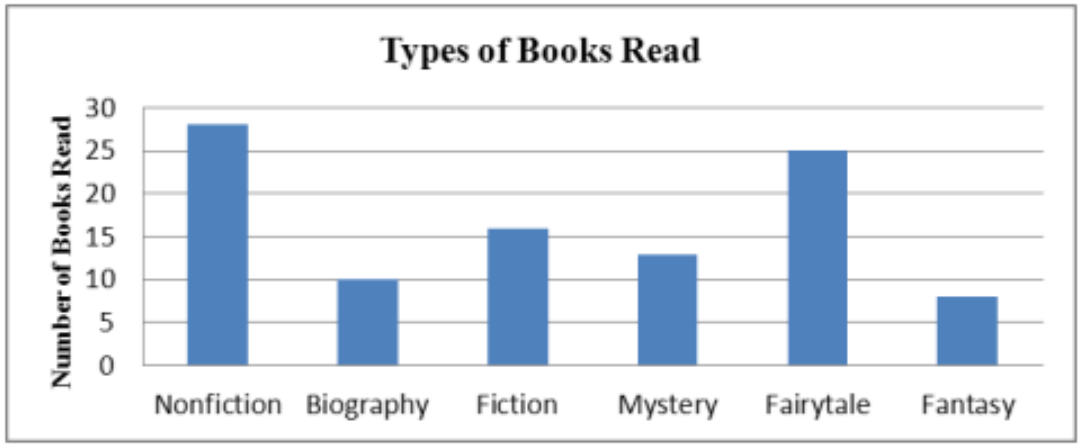
Zoom



T-Chart

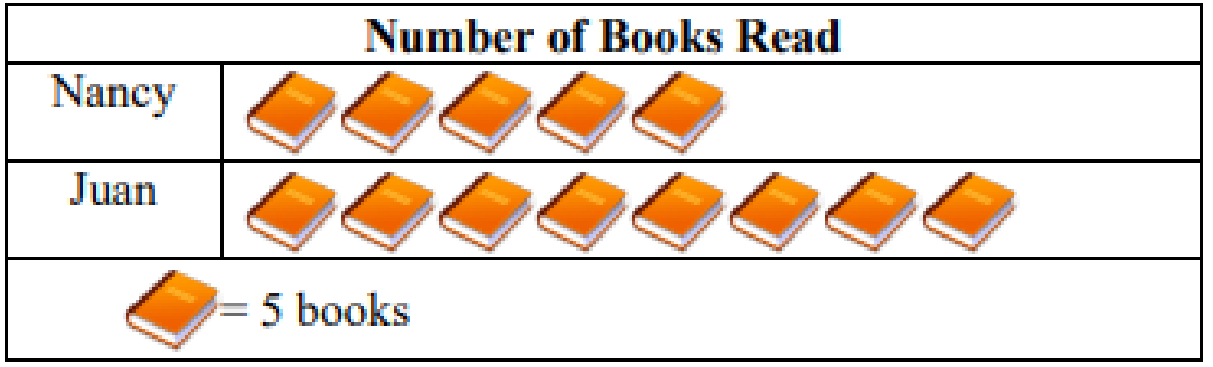
Start	Start	Hour	Min
1:19	3:25	-2h	
End	1:25		-5m
3:25	1:20		-1m
	1:19		
	D=	-2h	6m

GRAPHS



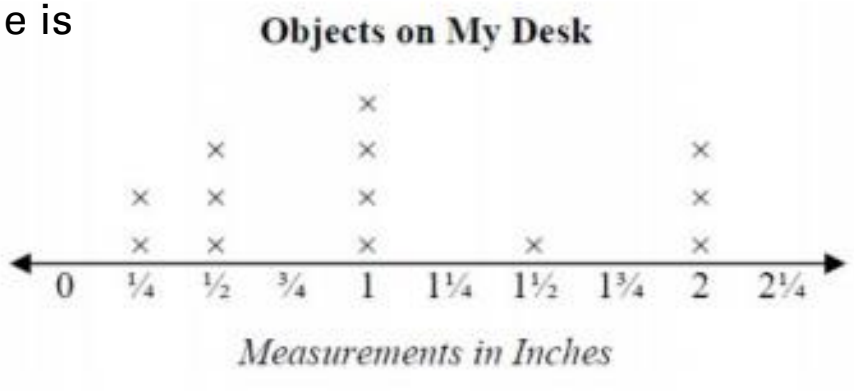
Bar graph

A Graph drawn using rectangular bars to show how large each value is



Pictograph

A type of graph that uses symbols and pictures to represent data



Line Plot

Line plots who data on a number line with an x or other marks to show frequency

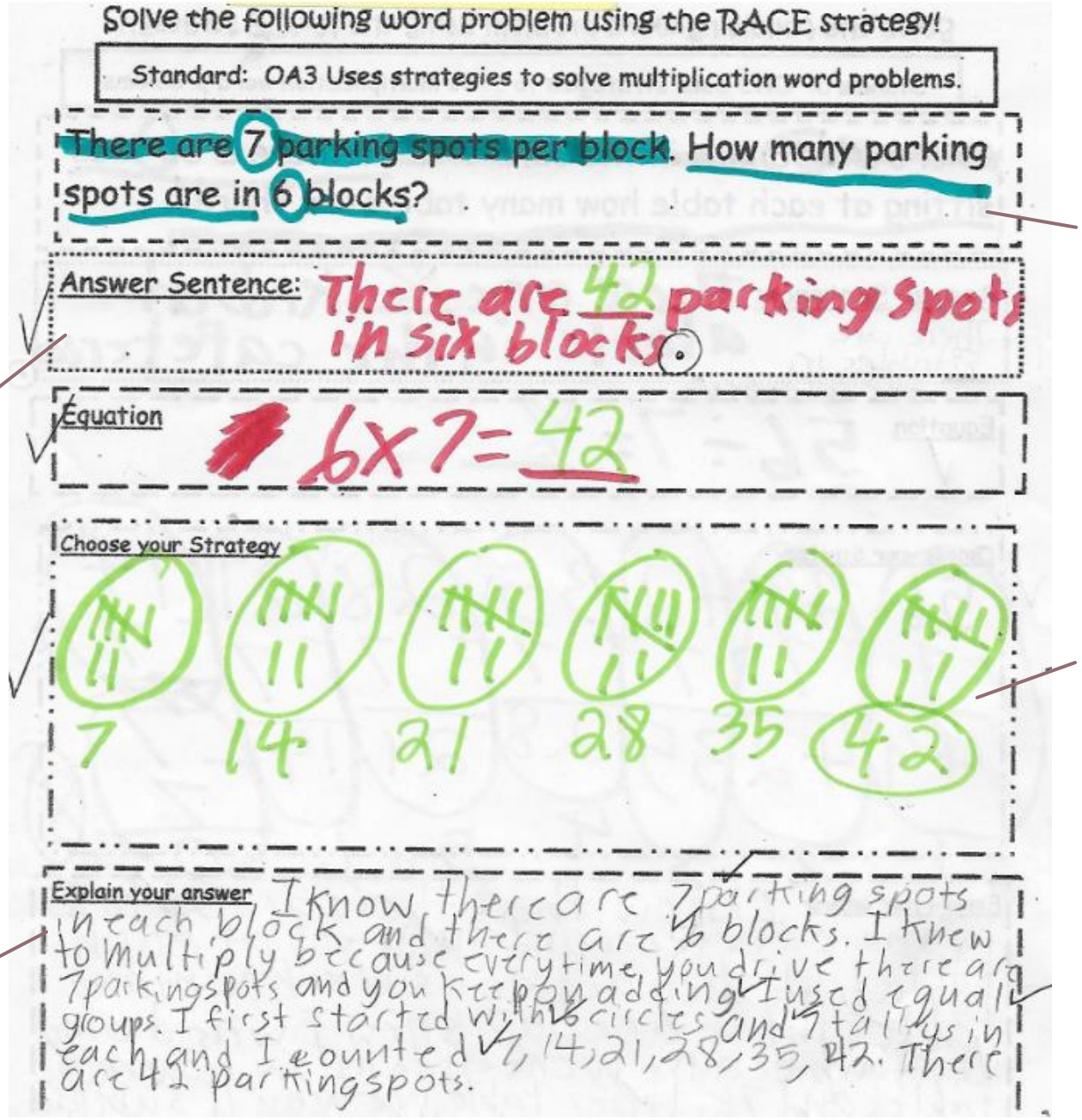
Scale = A series of numbers placed at fixed, or equal, distances.

A key is used to identify the number of categories present n a graph. It is also called a legend.

WORD PROBLEMS (RACE)

Answer Sentence
- Write an equation (numbers)
- Restate question (words)

Explain your answer
- What I know (facts & operation) (R)
- What I did (strategy) (C)
- What I found (answer question & summarize (A)


Solve the following word problem using the RACE strategy!

Standard: OA3 Uses strategies to solve multiplication word problems.

There are 7 parking spots per block. How many parking spots are in 6 blocks?

Answer Sentence: There are 42 parking spots in six blocks.

Equation: 6x7=42

Choose your Strategy

7 14 21 28 35 42

Explain your answer: I know there are 7 parking spots in each block and there are 6 blocks. I knew to multiply because everytime you drive there are 7 parking spots and you keep on adding. I used equal groups. I first started with 6 circles and 7 tallys in each and I counted 7, 14, 21, 28, 35, 42. There are 42 parking spots.

Read the Problem
- Circle important info
- Underline the question
- Eliminate extraneous info

Choose a Strategy
- Show all of your work