

Worksheet:

Follow each diagram closely.

We have to use numbers from 1 through 9

We are given 3 numbers

We have to find missing numbers and find a place for them

Each row and each column add up to a number as shown

Each diagram shows how we can solve the puzzle

See if you can solve it.

Tell your friends how you know it is a correct solution

Does any of your friend have a different solution?

Good Luck, and enjoy solving the puzzle



NOTE to Teacher and Parents:

This is a puzzle activity which is not mandatory for the class or the course, but the student may need and therefore please encourage to seek help in following the diagram or solving the puzzle.

Missing Number challenge



Let us find the missing numbers

3			Row Total = 16
		7	Row Total = 13
8			Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

Missing Number challenge



Try the first column: $(3 + ? + 8) = 12$

3			Row Total = 16
1		7	Row Total = 13
8			Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

- $3+8 = 11$
- $12-11 = 1$

Missing Number is

1

Missing Number challenge



Try the second row: $(1 + ? + 7) = 13$

3			Row Total = 16
1	5	7	Row Total = 13
8			Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

- $1+7 = 8$
- $13-8 = 5$

Missing Number is

5

What next?



- There are 9 squares
- We use each number from 1 to 9 for each square
- We have used 1, 3, 5, 7 and 8
- We are therefore, left with:
- 2, 4, 6 and 9
- Let us form pairs of these
 - 2-4, 2-6, 2-9
 - 4-2, 4-6, 4-9
 - 6-2, 6-4, 6-9
 - 9-2, 9-4, 9-6
- Find which pair fits

3		
1	5	7
8		

Adding numbers in each pair



- Our number pairs are
 - $2+4 = 6$, $2+6 = 8$, $2+9=11$
 - $4+2 = 6$, $4+6 = 10$, $4+9=13$
 - $6+2 = 8$, $6+4 = 10$, $6+9=15$
 - $9+2 = 11$, $9+4 = 13$, $9+6=15$
- Find which pair fits,
 - one row at a time

3		
1	5	7
8		

Missing Number challenge



First row total is 16: $(3 + ? + ?) = 16$

3			Row Total = 16
1	5	7	Row Total = 13
8			Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

- $16 - 3 = 13$
- Which pair adds up to 13?
- 4-9, or 9-4

So which one is it?

Missing Number challenge



First row total is 16: $(3 + ? + ?) = 16$

3	9	4	Row Total = 16
1	5	7	Row Total = 13
8			Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

- 4-9, or 9-4?
- But hey!
- Look at the last column
- Column total is 17
- $9 + 7 = 16$
- $17 - 16 = 1$
- And "1" is used
- So it is 9-4!!

Missing Number challenge



Second Column total is 16: $(9 + 5 + ?) = 16$

3	9	4	Row Total = 16
1	5	7	Row Total = 13
8	2		Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

- $9+5 = 14$
- $16-14 = 2$
- "2" is not used

Missing Number is

2

Missing Number challenge



We have used all numbers except "6"

3	9	4	Row Total = 16
1	5	7	Row Total = 13
8	2	6	Row Total = 16
Column Total = 12	Column Total = 16	Column Total = 17	

- So ..
- Missing Number is

6

Check the row and column totals if "6" is the correct answer!