Magic!

Fairview Elementary Math Club

Pick a number, any number

Follow these instructions and prepare to be amazed :)

- ▶ Secretly pick any number between 9 and 100; don't tell Dr. Dave!
- ▶ Multiply your number by 10
- ▶ Then, subtract 9 times any number between 1 and 9, and tell Dr. Dave this final result, from which he can divine your secret number!

Example

- ▶ Secret number is 31
- ▶ $31 \times 10 = 310$
- ▶ From 310, subtract $9 \times 5 = 45$: $310 - 45 = 265$
- ▶ Tell Dr. Dave the result of 265 to see if he can guess the secret number 31

Pick a number, any number: version #2

Follow these instructions
- ▶ Secretly pick any number greater than 9
- ▶ Add 90 to your number
- ▶ Then remove the first digit and add it to the remaining number, and tell Dr. Dave this final result, from which he can divine your secret number

Example
- ▶ Secretly pick 22
- ▶ $22 + 90 = 112$
- ▶ First digit is 1: remove it from 112 to get 12, then add the 1 to get $12 + 1 = 13$
- ▶ Tell Dr. Dave the result of 13 to see if he can guess the secret number 22

Magic magnet number

Instructions

- ▶ Dr. Dave secretly writes a magic magnet number
- ▶ You secretly pick any number between 51 and 99
- ▶ Focus on your number; Dr. Dave will sense and tell you which number to add to it
- ▶ After adding, cross out the first digit, then add it to the remaining number
- ▶ Finally, subtract that result from your original number...does it match the magic magnet number??

Example

- ▶ You secretly pick 61 and focus
- ▶ Dr. Dave tells you to add 60: $61 + 60 = 121$
- ▶ From 121, cross out the first digit 1 to get 21, then add the 1 back: $21 + 1 = 22$
- ▶ Finally, subtract 22 from your secret 61: $61 - 22 = 39$

Lightning sums

Instructions
- Pick two numbers between 0 and 10; these are #1 and #2
- Compute #3: add #1 and #2
- Compute #4: add #2 and #3
- Compute next: add prior two numbers
- When you have ten numbers, let Dr. Dave glance at the list and he will sum them fast as lightning!
- Add your ten numbers together to make sure he's correct :)

Example
- Pick 3 and 4 to start (these are #1 and #2)
- Compute #3: add #1 and #2, $3 + 4 = 7$
- Compute #4: add #2 and #3, $4 + 7 = 11$
- Then $7 + 11 = 18$, $11 + 18 = 29$, $18 + 29 = 47$, $29 + 47 = 76$, $47 + 76 = 123$, $76 + 123 = 199$
- Let Dr. Dave quickly glance at your final list of ten numbers: 3, 4, 7, 11, 18, 29, 47, 76, 123, 199
- Add: $3 + 4 + 7 + 11 + 18 + 29 + 47 + 76 + 123 + 199 = 517$
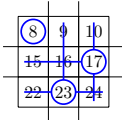
Calendar magic

Outline any 3×3 square of dates in the calendar

Have Dr. Dave write down a
number while you:

- ▶ Circle any of your nine
  numbers; cross out the others
  in its row and column
- ▶ Circle any remaining number;
  cross out the others in its row
  and column
- ▶ Add the remaining number
  to the two you circled... see if
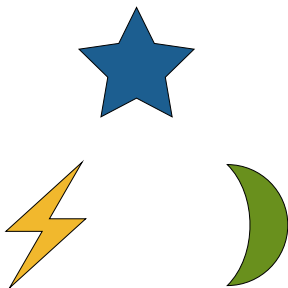 Dr. Dave divined your sum!

December 2025

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Example: Sum = 48

Magic symbols

Quietly (don't tell Dr. Dave):

- ▶ Take the last 3 digits of your lunch # (like 842)
- ▶ Reverse the digits (like 248)
- ▶ Subtract the smaller from the larger (like $842 - 248 = 594$)
- ▶ Divide by three (like $594/3 = 198$)
- ▶ Sum the digits (like $1 + 9 + 8$)
- ▶ See if Dr. Dave can predict your symbol. . . !

A magic trick

Instructions: cover/shade any four vertical ▯
or any four horizontal ▭▭▭▭

Then, Dr. Dave will immediately tell you their sum!

A magic trick

Cover four horizontal ▢▢▢▢ or vertical ▢

0	3	9	1	7	0	3	9	1	7	0	3
4	5	2	8	1	4	5	2	8	1	4	5
7	6	0	4	3	7	6	0	4	3	7	6
8	4	6	2	0	8	4	6	2	0	8	4
1	2	3	5	9	1	2	3	5	9	1	2
0	3	9	1	7	0	3	9	1	7	0	3
4	5	2	8	1	4	5	2	8	1	4	5
7	6	0	4	3	7	6	0	4	3	7	6
8	4	6	2	0	8	4	6	2	0	8	4
1	2	3	5	9	1	2	3	5	9	1	2
0	3	9	1	7	0	3	9	1	7	0	3
4	5	2	8	1	4	5	2	8	1	4	5