

FREE FROM MENTAL MATH MAYHEM

The Trick Card Pack

12 mental math tricks to learn at home and show off at the dinner table, from adding 9 in a blink to telling someone the day they were born.

1. **Print and cut.** Four cards on each page. Cut on the dotted lines.
2. **One trick a week.** Read the trick, try the example, then make up your own.
3. **Show it off.** Every card has a challenge to perform for the family.
4. **Earn your belts.** Color in a belt on the certificate (last page) for every world you finish.

For grown-ups

Kids learn each trick step by step in Mental Math Mayhem on The Nerd Flow, then use it to beat a boss and earn a belt. The first world, Plus Park, is free to play with no account. All 8 worlds come with The Nerd Flow Pass.

mentalmathmayhem.com

Plus Park — WHITE BELT

TRICK CARD 1 OF 12

Sneaky 9s

To add 9, add 10, then take 1 away.



46 + 9 = 56 − 1 = 55

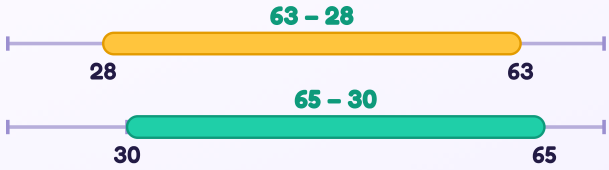
Show it off: Ask a grown-up for any number, and add 9 to it out loud before they can count it up.

Minus Mines — YELLOW BELT

TRICK CARD 2 OF 12

Same Difference

Add the same amount to both numbers so the second one is a round 10. The answer stays the same.



63 − 28 = 65 − 30 = 35

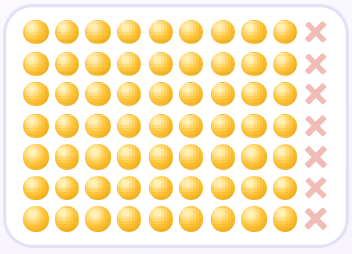
Show it off: Ask a grown-up for a take-away problem with big numbers, and answer it while they reach for a pencil.

Times Tower — ORANGE BELT

TRICK CARD 3 OF 12

Nines Shortcut

Times 9: times 10, then take away one group.



7 × 9 = 70 − 7 = 63

Show it off: Have a grown-up quiz you on the 9s, all the way up to 9 × 9, as fast as they can ask.

Times Tower — ORANGE BELT

TRICK CARD 4 OF 12

The Elevens Trick

Times 11: split the two digits apart, add them, and put the sum in the middle.

2 5 3

23 × 11: 2 (2 + 3) 3 = 253

Show it off: Ask a grown-up for any two-digit number, and say it times 11 in a blink.

Times Tower — ORANGE BELT

TRICK CARD 5 OF 12

Fives Squared

A number ending in 5, times itself: times the first digit by the next number up, then put 25 on the end.

12 25

35 × 35: 3 × 4 = 12, then 25 → 1225

Show it off: Ask a grown-up for any number ending in 5, like 65, and say it times itself right away.

Divide Diner — GREEN BELT

TRICK CARD 6 OF 12

Divisibility Detective

Add the digits (and add again until it is one digit). Land on 3, 6 or 9, and 3 splits it evenly. Land on 9, and 9 does too.

372 3 + 7 + 2 = 12 → 1 + 2 = 3 ✓

372: 3 + 7 + 2 = 12 → 1 + 2 = 3. Yes!

Show it off: Ask a grown-up for a big number, and tell them whether 3 or 9 splits it evenly, without dividing.

Money Market — BLUE BELT

TRICK CARD 7 OF 12

The 99¢ Trick

A price like $4.99 is just 1¢ less than $5. Use the round price, then take back 1¢ for each one.

$4.99 → $5 (1¢ more) + $2.99 → $3 (1¢ more)

$4.99 + $2.99 = $8 − 2¢ = $7.98

Show it off: At the store, add up two prices that end in 99¢ before the cash register does.

Money Market — BLUE BELT

TRICK CARD 8 OF 12

The Tip Trick

To find 10%, move the dot one place to the left. 20% is double that. 15% is 10% plus half of 10%.

$ 4 0 . 0 0

10% (dot one place left)

$ 4 . 0 0

15% of $40 = $4 + $2 = $6

Show it off: At a restaurant, work out a 15% or 20% tip for the grown-ups.

Showtime Stage — PURPLE BELT

TRICK CARD 9 OF 12

The Hundred Trick

Two numbers just under 100: find how far each is from 100. Take one gap away from the other number, then multiply the gaps. Put them side by side.

9 3 1 2

97 × 96: 97 − 4 = 93, 3 × 4 = 12 → 9312

Show it off: Ask a grown-up for two numbers from 91 to 99, and say the four-digit answer while they are still pressing calculator buttons.

Showtime Stage — PURPLE BELT

TRICK CARD 10 OF 12

Partners Return

Same tens, and the ones are partners of 10? Multiply the tens digit by the next number up, then the ones by each other, and put them side by side.

2 0 2 1

43 × 47: 4 × 5 = 20, 3 × 7 = 21 → 2021

Show it off: Ask a grown-up to pick a number like 43. Say "and 47", then name the answer before anyone can work it out.

Memory Mountain — BROWN BELT

TRICK CARD 11 OF 12

Picture Pegs

Every digit has a rhyming picture: 1 bun, 2 shoe, 3 tree, 4 door, 5 hive, 6 sticks, 7 heaven, 8 gate, 9 vine, 0 hero. Turn the digits into pictures and link them in a silly story.



3 tree



8 gate



2 shoe



5 hive

3825: tree, gate, shoe, hive

Show it off: Ask a grown-up for a 5-digit number. Make it a story, chat about something else for a minute, then say the number back.

Calendar Castle — BLACK BELT

TRICK CARD 12 OF 12

The Birthday Trick

Any date, any year: find the year's magic day with the year code, find the month's magic date, then count from it to your date.

July 2000

						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					

July 4, 2000: magic day Tuesday, 7/11 is a Tuesday, 4th is 7 earlier: Tuesday

Show it off: Ask a grown-up for their birthday, with the year, and tell them the weekday they were born. Then look it up together!

MENTAL MATH MAYHEM

Belt Certificate

This is to certify that

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is a Mental Math Mayhem mathemagician, and has earned these belts.
Color in each belt as you earn it.

White Belt Plus Park	**Yellow Belt** Minus Mines	**Orange Belt** Times Tower	**Green Belt** Divide Diner
Blue Belt Money Market	**Purple Belt** Showtime Stage	**Brown Belt** Memory Mountain	**Black Belt** Calendar Castle

Tricks I can show off

- ☐ Sneaky 9s
- ☐ Nines Shortcut
- ☐ Fives Squared
- ☐ The 99¢ Trick
- ☐ The Hundred Trick
- ☐ Picture Pegs
- ☐ Same Difference
- ☐ The Elevens Trick
- ☐ Divisibility Detective
- ☐ The Tip Trick
- ☐ Partners Return
- ☐ The Birthday Trick



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Signed by The Great Presto Date

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