

Answers: stops 1 to 4

1 · Ten Buddies

A $7+3 \cdot 4+6 \cdot 9+1 \cdot 2+8 \cdot 6+4 \cdot 8+2 \cdot 3+7 \cdot 5+5$

B $48+2=50 \cdot 76+4=80 \cdot 33+7=40 \cdot 61+9=70 \cdot$

$85+5=90 \cdot 27+3=30 \cdot 54+6=60 \cdot 19+1=20$

C $5=2+3 \cdot 7=4+3 \cdot 8=3+5 \cdot 9=5+4$

2 · Ten Jump

A $85+8 = 85+5+3 = 93$

$78+4 = 78+2+2 = 82$

$67+5 = 67+3+2 = 72$

$39+7 = 39+1+6 = 46$

$56+9 = 56+4+5 = 65$

$26+8 = 26+4+4 = 34$

B $47+6: +3 \rightarrow 50, +3 \rightarrow 53 \cdot 68+5: +2 \rightarrow 70, +3 \rightarrow 73$

C $58+6=64 \cdot 37+9=46 \cdot 74+8=82 \cdot 29+6=35 \cdot$

$46+7=53 \cdot 83+9=92 \cdot 65+8=73 \cdot 18+5=23 \cdot$

$49+3=52 \cdot 77+6=83 \cdot 35+9=44 \cdot 88+4=92$

Typical mistake: $48 + 5 = 43$. The ten was forgotten.
When you cross a ten, the tens digit always goes up by 1.

3 · Jump Back

A $42-6 = 42-2-4 = 36$

$71-4 = 71-1-3 = 67$

$64-7 = 64-4-3 = 57$

$35-8 = 35-5-3 = 27$

$93-5 = 93-3-2 = 88$

B $62-5: -2 \rightarrow 60, -3 \rightarrow 57 \cdot 81-7: -1 \rightarrow 80, -6 \rightarrow 74$

C $91-3=88 \cdot 54-8=46 \cdot 33-6=27 \cdot 82-7=75 \cdot$

$45-9=36 \cdot 76-8=68 \cdot 61-5=56 \cdot 27-9=18$

Typical mistake: $53 - 5 = 52$ (doing $5 - 3$ instead of $3 - 5$). Fix: jump back to the ten first.

4 · Workshop

A $47+30=77, +6 \rightarrow 83 \cdot 29+40=69, +5 \rightarrow 74 \cdot$

$56+20=76, +8 \rightarrow 84$

B $30+40=70, 8+6=14 \rightarrow 84 \cdot 60+20=80,$

$5+7=12 \rightarrow 92$

C $83-30=53, -6 \rightarrow 47 \cdot 72-40=32, -5 \rightarrow 27 \cdot$

$91-50=41, -8 \rightarrow 33$

D $46+9=55 \cdot 73-9=64 \cdot 38+19=57 \cdot$

$85-19=66$

Answers: stops 5 to 8

5 · Frog Patterns

- 1: 51, 52, 53; next $49 + 5 = 54$ (+1, stays the same, +1)
 2: 42, 52, 62; next $68 + 4 = 72$ (+10, stays the same, +10)
 3: 33, 33, 33; next $30 + 3 = 33$ (+1, -1, stays the same)
 4: 48, 48, 48; next $55 - 7 = 48$ (+1, +1, stays the same)
 5: 78, 68, 58; next $51 - 3 = 48$ (-10, stays the same, -10)
 6: 38, 37, 36; next $45 - 10 = 35$ (stays the same, +1, -1)

B Both numbers get 1 bigger. The difference between them stays the same, so the answer stays 48. (Box 3: the 1st number gets 1 bigger and the 2nd 1 smaller, so the sum stays 33.)

6 · Bakery

- A** $3 \times 4 = 12$, $4 \times 3 = 12$
B $4 \times 6 = 24$ · $7 \times 5 = 35$ · $3 \times 8 = 24$ · $9 \times 2 = 18$ ·
 $6 \times 6 = 36$ · $8 \times 4 = 32$ · $5 \times 9 = 45$ · $7 \times 3 = 21$
C $20 \div 4 = 5$ · $35 \div 5 = 7$ · $18 \div 3 = 6$ · $24 \div 6 = 4$ ·
 $40 \div 8 = 5$ · $27 \div 3 = 9$
D $3 \times 7 = 21$, $7 \times 3 = 21$, $21 \div 3 = 7$, $21 \div 7 = 3$
 $5 \times 8 = 40$, $8 \times 5 = 40$, $40 \div 5 = 8$, $40 \div 8 = 5$
E double 14 = **28** · double 25 = **50** · double 37 = **74** · double 48 = **96**
 half of 36 = **18** · half of 50 = **25** · half of 84 = **42** · half of 70 = **35**

7 · Detective Cases

- 1: $48 + 7 = 55$. There are 55 people on the bus now.
 2: $63 - 6 = 57$. She has 57 coins left.
 3: $4 \times 5 = 20$. There are 20 balls.
 4: $36 + 27 = 63$, $63 - 9 = 54$. 54 fish are left.

8 · Lightning Rally

- A:** $28+4=32$ · $58+4=62$ · $17-8=9$ · $71-8=63$ ·
 $65+8=73$ · $39+7=46$ · $34+8=42$ · $32-5=27$ ·
 $52+9=61$ · $14+8=22$
B: $84-8=76$ · $63+9=72$ · $89+3=92$ · $15+8=23$ ·
 $75-8=67$ · $36-7=29$ · $14+7=21$ · $24+8=32$ ·
 $64+8=72$ · $28+3=31$
C: $67+7=74$ · $18+4=22$ · $17+6=23$ · $15-7=8$ ·
 $83+8=91$ · $28-9=19$ · $79+7=86$ · $68+7=75$ ·
 $49+8=57$ · $21-3=18$

For grown-ups: what helps most

- **Ten buddies** (stop 1) need to be lightning fast. They are the base for every crossing.
- When there is a mistake, have the child explain out loud: "To the ten it's ..., then ... more." Don't just correct the answer.
- 10 minutes every day beats one hour once. One rally round or a few minutes of the trainer a day is enough.
- Don't forbid finger counting, but show the ten jump as the faster way.