# Live Mathletics Tic Tac Toe 

The aim of the game is to claim three squares in a row. The questions in Live Mathletics Tic Tac Toe are aligned to Live Mathletics levels. If you're not familiar with the Live Mathletics levels, view the guide to each of the levels here.


## You will need:

- Printed copies of Live Mathletics Tic Tac Toe (one between two students)
- Markers for students to claim each square



## Activity:

1. Divide your students into pairs and distribute the Tic Tac Toe sheets. We suggest pairing by ability level, but it is not a must.
2. One student will be $X$ and one will be $O$. The $X$ player goes first. To claim a square, the student completes the problem and writes the answer in the box. If both players agree it is correct, the player puts an $X$ through the square and it is the $O$ player's turn. (It is good practice to have the opposing student work through the problem at the same time so they are ready with the correct answer).
3. If the opposing player believes the answer is wrong, they challenge the answer by asking the student to explain their thinking. If the opposing student still believes the answer is incorrect, they must attempt the problem themselves and share what they think is the correct answer. This is a great opportunity for students to explain and share their thinking with each other. If students cannot come to an agreement, they can raise their hand and the game instructor can check the answer. If it is wrong, no square is claimed, and it is now the opposite player's turn.
4. Players continue to take it in turns to claim squares until one player claims three in a row. If all squares are claimed and no one has three in a row, the game is a draw.
5. After each game, players switch between $X$ and $O$ - taking it in turns to be the one to make the first move.
6. Once the game is finished, check the questions and answers with the class to make sure they worked them out correctly and have them share their experiences.

# Live Mathletics Tic Tac Toe 

Level 1: Game 1

| $5+5=\square$ | $2+4=\square$ | $3+3=\square$ |
| :--- | :--- | :--- |
| $4+4=\square$ | $1+3=\square$ | $5+1=\square$ |
| $3+4=\square$ | $2+2=\square$ | $3+5=\square$ |

Level 1: Game 2

| $2+3=\square$ | $1+1=\square$ | $4+1=\square$ |
| :---: | :---: | :---: |
| $4+2=\square$ | $2+5=\square$ | $1+2=\square$ |
| $4+5=\square$ | $5+3=\square$ | $4+3=\square$ |

# Live Mathletics Tic Tac Toe 

Level 2: Game 1

| $6+5=\square$ | $7+10=\square$ | $13-7=\square$ |
| :---: | :---: | :---: |
| $10+3=\square$ | $17-8=\square$ | $10+2=\square$ |
| $7-1=\square$ | $9+8=\square$ | $18-1=\square$ |

Level 2: Game 2

| $16+2=\square$ | $20-8=\square$ | $9+7=\square$ |
| :---: | :---: | :---: |
| $7-4=\square$ | $2+5=\square$ | $17-9=\square$ |
| $9+4=\square$ | $15-4=\square$ | $8+5=\square$ |

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Level 3: Game 1

| $6+1+11=\square$ | $10-3=\square$ | $3 \times 10=\square$ |
| :---: | :---: | :---: |
| $12+12=\square$ | $21+16=\square$ | $17+17=\square$ |
| $6 \times 10=\square$ | $50-39=\square$ | $2+2+3=\square$ |

Level 3: Game 2

| $43-19=\square$ | $21+20=\square$ | $24+24=\square$ |
| :---: | :---: | :---: |
| $6 \times 3=\square$ | $50-22=\square$ | $7 \times 10=\square$ |
| $19+19=\square$ | $3 \times 8=\square$ | $38-11=\square$ |

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Level 4: Game 1

| $31+44=\square$ | $5 \times 9=\square$ | $10+5+65=\square$ |
| :---: | :---: | :---: |
| Half of $32=\square$ | $20 \div 4=\square$ | $65-52=\square$ |
| $7 \times 8=\square$ | $28+43=\square$ | $95-64=\square$ |

Level 4: Game 2

| $84-62=\square$ | $20+25+40$ <br> $=\square$ | $12 \div 2=\square$ |
| :---: | :---: | :---: |
| $14+14=\square$ | $24+73=\square$ | $10 \times 7=\square$ |
| $80 \div 10=\square$ | $8 \times 8=\square$ | Half of $42=\square$ |

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Level 5: Game 1

| $150+155=\square$ | $36 \div 9=\square$ | $64-9=\square$ |
| :--- | :--- | :--- |
| $74 \mathrm{~m}=\square \mathrm{cm}$ | $65+140=\square$ | $8+\square=100$ |
| $\square \mathrm{~mm}=61 \mathrm{~m}$ | $175+180=\square$ | $95-52=\square$ |

Level 5: Game 2

| $70+240$ <br> $=\square$ | $49 \div 7=\square$ | $28+\square=50$ |
| :---: | :---: | :---: |
| $180+125=\square$ | $72-49=\square$ | $6530 \mathrm{~mm}=\square \mathrm{m}$ |
| $12+\square=50$ | $\square \mathrm{~cm}=57 \mathrm{~m}$ | $98-29=\square$ |

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Level 6: Game 1

| $0.8-0.7=\square$ | $6 \times(5+10)$ <br> $=\square$ | $75 \%$ of $40 \square$ |
| :---: | :---: | :---: |
| $\square \mathrm{~cm}=730 \mathrm{~mm}$ | $4 / 5$ as a <br> decimal $=\square$ | $0.4+0.2=\square$ |
| 0.4 as a <br> percentage <br> $=\square \%$ | $10 \%$ of $20=\square$ | $(4+1) \times 4=\square$ |

Level 6: Game 2

| $20 \%$ of $30=\square$ | $5 \times(2+1)=\square$ | $0.2+0.3=\square$ |
| :---: | :---: | :---: |
| $3000 \mathrm{~mm}=\square$ <br> mv | $5 \times 6$ as a <br> percentage <br> $=\square \%$ | $7 \times(11-8)=\square$ |
| $1.2+2.7=\square$ | $81 \%$ as a <br> decimal $=\square$ | $9 \times 0.1=\square$ |

# Live Mathletics <br> Tic Tac Toe 

## Level 1: Game 1

10, 6, 6
8, 4, 6
7, 4, 8

Level 1: Game 2
5, 2, 5
6, 7, 3
9, 8, 7

Level 2: Game 1
11, 17, 6
13, 9, 12
6, 17, 17

Level 2: Game 2
18, 12, 16
3, 7, 8
13, 11, 13

## Level 3: Game 1

18, 7, 30
24, 37, 34
60, 11, 7

## Level 3: Game 2

24, 41, 48
18, 28, 70
38, 24, 27

Level 4: Game 1
75, 45, 80
16, 5, 13
56, 71, 31

Level 4: Game 2
22, 85, 6
28, 97, 70
8, 64, 21

Level 5: Game 1
305, 4, 55
7400, 205, 92
61000, 355, 43

Level 5: Game 2
310, 7, 22
305, 23, 6.53
38,5700, 69

Level 6: Game 1
0.1, 90, 30

73, 0.8, 0.6
40, 2, 20

Level 6: Game 2
6, 15, 0.5
3, 60, 21
3.9, 0.81, 0.9

## Live Mathletics Tic Tac Toe

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