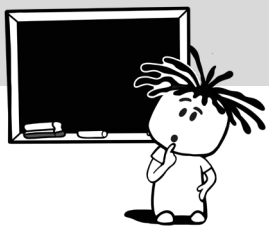
Target Number



The Goal

To hit the Target exactly, using the six given numbers at most once each with the four basic operations. If you can't hit it exactly, then try to get as close as possible.

Rules for the Challenge:

1. You may not use the same number more than once.
2. You do not have to use all the numbers.
3. You can use addition, subtraction, multiplication and division.
4. Intermediate steps must result in whole numbers (no fractions in the middle of your work).

Target Number Scoring System

- 10 points for the exact hit of the target (0 away)
- 7 points if within 1 to 5 of the target
- 5 points if within 6 to 10 of the target
- 0 points if more than 10 away from the target, or if the maths is incorrect

Bonus Rules (Optional)

- The **Efficiency Bonus** earns 2 extra points if the target was hit exactly, using 4 or fewer numbers.
- The **Time Trial** . . . set a timer for 30 or 60 seconds.
  If the player doesn't have a final answer when the buzzer goes off, they get 0 for that round.
- The **"Beat the Teacher"** Bonus
  If a player's solution uses *fewer* steps than the answer key provided, an extra 3 points are earned.

	Target	Given Numbers	Possible Solutions
1	**110**	**4, 5, 6, 7, 8, 25**	$4 \times 25 + (8 - 6) \times 5 = 110$
2	**120**	**2, 3, 5, 7, 25, 50**	$3 \times 50 - (25 + 5) = 120$
3	**139**	**2, 3, 5, 8, 25, 50**	$3 \times 50 + 2 - 8 - 5 = 139$
4	**156**	**2, 4, 6, 8, 25, 75**	$2 \times 75 + 6 = 156$
5	**184**	**2, 3, 5, 8, 50, 75**	$8 \times ((75 - 50) - 2) = 200 - 16 = 184$
6	**207**	**1, 4, 5, 7, 25, 100**	$100 + 4 \times 25 + 7 = 207$
7	**234**	**2, 5, 8, 10, 25, 50**	$2 \times (5 \times 25 - 8) = 2 \times 117 = 234$
8	**270**	**1, 3, 7, 10, 25, 100**	$3 \times (100 - 10) = 270$
9	**286**	**3, 4, 5, 8, 25, 100**	$4 \times 100 - 5 \times 25 + 3 + 8 = 400 - 125 + 11 = 286$
10	**317**	**1, 2, 5, 9, 50, 75**	$5 \times 50 + 75 + 1 - 9 = 250 + 67 = 317$

	Target	Given Numbers	Possible Solutions
11	**336**	**1, 4, 6, 8, 75, 100**	$4 \times (75 + 8 + 1) = 4 \times 84 = 336$
12	**382**	**2, 5, 7, 8, 25, 50**	$7 \times 50 + 25 + 5 + 2 = 350 + 32 = 382$
13	**412**	**2, 3, 6, 9, 50, 75**	$(2 + 6) \times 50 + 3 + 9 = 400 + 12 = 412$
14	**451**	**3, 6, 9, 10, 75, 100**	$(6 \times 75) + 10 - 9 = 450 + 1 = 451$
15	**468**	**3, 4, 5, 8, 30, 50**	$(4 + 5) \times 50 + 30 \div 3 + 8 = 450 + 18 = 468$
16	**471**	**1, 2, 4, 9, 50, 75**	$(9 - 1) \times 50 + 75 - 4 = 400 + 71 = 471$
17	**514**	**1, 2, 4, 6, 9, 50**	$(1 + 9) \times 50 + 6 + 2 \times 4 = 500 + 6 + 8 = 514$
18	**545**	**2, 7, 10, 12, 25, 50**	$10 \times (50 + 2) + 25 = 520 + 25 = 545$
19	**546**	**4, 5, 5, 7, 10, 25**	$(5 + 7 + 10) \times 25 - 4 = 550 - 4 = 546$
20	**555**	**1, 2, 5, 5, 50, 100**	$5 \times 100 + 50 + 5 = 555$
21	**574**	**2, 3, 7, 9, 10, 50**	$2 \times 7 \times (50 - 9) = 2 \times 7 \times 41 = 2 \times 287 = 574$
22	**592**	**4, 6, 8, 10, 25, 100**	$(6 \times 100) - 8 = 592$
23	**595**	**1, 8, 9, 10, 25, 75**	$8 \times 75 + 1 + 9 + 10 - 25 = 600 + 20 - 25 = 595$
24	**598**	**2, 4, 6, 8, 9, 50**	$(2 + 9) \times 50 + 6 \times 8 = 550 + 48 = 598$
25	**612**	**3, 5, 8, 9, 10, 50**	$9 \times (8 + 10 + 50) = 72 + 90 + 450 = 612$
26	**628**	**3, 5, 8, 9, 10, 75**	$8 \times 75 + (5 - 3) \times 9 + 10 = 600 + 18 + 10 = 628$
27	**642**	**1, 6, 7, 8, 50, 100**	$6 \times 100 + 50 - 8 = 642$
28	**651**	**1, 3, 6, 8, 50, 75**	$8 \times 75 + 50 + 1 = 651$
29	**719**	**1, 3, 4, 6, 75, 100**	$(4 + 6) \times (75 - 3) - 1 = 720 - 1 = 719$
30	**729**	**1, 4, 7, 9, 25, 75**	$7 \times ((25 + 75) + 4) + 1 = 728 + 1 = 729$
31	**777**	**1, 3, 4, 7, 25, 75**	$7 \times (4 \times (25 + 3) - 1) = 7 \times 111 = 777$
32	**843**	**3, 7, 10, 25, 50, 100**	$3 \times 25 \times 10 + 100 - 7 = 750 + 100 - 7 = 843$
33	**861**	**2, 3, 5, 6, 6, 75**	$(5 + 6) \times 75 + 2 \times 3 \times 6 = 750 + 75 + 36 = 861$
34	**864**	**1, 3, 4, 8, 10, 100**	$8 \times (100 + 10 + 1 - 3) = 800 + 80 + 8 - 24 = 888 - 24 = 864$
35	**870**	**1, 3, 4, 5, 9, 25**	$3 \times (25 + 4) \times (1 + 9) = 3 \times 29 \times 10 = 870$
36	**888**	**1, 2, 4, 8, 75, 100**	$(4 + 8) \times (75 - 1) = 12 \times (75 - 1) = 900 - 12 = 888$
37	**898**	**3, 5, 7, 9, 10, 75**	$(3 + 9) \times 75 + 5 - 7 = 900 - 2 = 898$
38	**925**	**2, 5, 8, 9, 75, 100**	$(2 + 8) \times 100 - 75 = 1\,000 + 75 = 925$
39	**926**	**2, 4, 7, 10, 75, 100**	$(10 \times (100 - 7)) - 4 = 1\,000 - 70 - 4 = 926$
40	**954**	**1, 4, 6, 9, 75, 100**	$9 \times (100 + 6) = 900 + 54 = 954$