

Binary Representation and Outcomes Table:

Instruction	Binary	Operation	Outcome if Correct	Outcome if Incorrect
li \$1, 2	00000001	Load immediate 2 into \$1	\$1 = 2	\$1 ≠ 2
li \$2, 3	00000010	Load immediate 3 into \$2	\$2 = 3	\$2 ≠ 3
add \$3, \$1, \$2	00000011	\$1 + \$2 -> \$3	\$3 = 5	\$3 ≠ 5
sub \$4, \$1, \$2	00000100	\$1 - \$2 -> \$4	\$4 = -1	\$4 ≠ -1
mul \$5, \$1, \$2	00000101	\$1 * \$2 -> \$5	\$5 = 6	\$5 ≠ 6
div \$6, \$1, \$2	00000110	\$1 / \$2 -> \$6	\$6 = 0 (integer division)	\$6 ≠ 0
bgt \$3, \$4	00000111	Branch if \$3 > \$4	Branch taken	Branch not taken
pr \$3	00001000	Print \$3	Output 5	Different output
pr \$4	00001001	Print \$4	Output -1	Different output
pr \$5	00001010	Print \$5	Output 6	Different output
pr \$6	00001011	Print \$6	Output 0	Different output