Comparing results of operations X40685_en

Implement a program that reads boolean expressions of comparison between an arithmetic operation between naturals and a natural number, and determines if they evaluate to `true` or `false`.

Input

Each line of the input has the following format:

`NUM1 OPERATOR NUM2 COMPARATOR NUM3`

Where `NUM1, NUM2, NUM3` are naturals, `OPERATOR` is an operator from {`+`, `-`, `*`}, and COMPARATOR is a comparison operator from {`<`, `>`, `<=`, `>=`, `==`, `!=`}.

Output

For each input line, the output has `true` or `false`, the boolean value resulting from evaluating the boolean expression represented by the line.

Sample input 1

```
3 - 7 > 3
5 - 2 >= 1
2 - 0 > 3
6 + 6 == 6
1 * 7 >= 2
0 * 3 > 5
9 + 2 < 9
7 - 6 > 2
9 + 1 != 4
7 * 4 != 0
3 - 1 <= 6
3 * 0 == 1
5 + 4 >= 6
5 - 9 > 7
4 + 2 >= 4
7 * 4 >= 0
7 + 6 <= 8
4 + 1 <= 9
2 + 6 < 9
2 - 6 < 9
5 - 4 == 7
1 * 2 >= 2
2 * 1 <= 6
1 + 9 == 9
0 + 1 > 7
1 + 5 >= 7
7 - 7 >= 6
5 - 3 != 4
8 + 2 != 3
9 + 8 == 5
0 + 6 != 8
5 * 1 > 5
9 - 4 <= 1
0 - 0 <= 4
4 - 7 <= 3
1 * 5 >= 6
2 * 7 == 5
7 + 1 <= 5
9 - 5 > 8
8 + 1 < 9
6 - 3 > 3
8 * 0 == 8
8 + 9 >= 7
6 * 3 < 3
0 * 2 != 4
0 * 9 <= 6
9 * 2 <= 7
7 + 4 <= 1
2 + 9 >= 6
8 - 2 != 0
5 - 1 < 8
5 + 6 == 6
2 * 8 == 2
8 * 7 < 4
0 + 2 != 9
0 * 1 >= 1
1 - 3 <= 0
3 - 1 != 6
9 + 3 < 0
5 * 6 <= 0
0 * 6 < 6
7 + 6 > 8
7 * 8 == 9
9 * 0 < 7
6 + 3 < 1
5 * 9 >= 4
```

```
9 - 0 != 5
8 * 0 < 8
0 - 2 != 6
1 + 4 == 2
2 * 5 >= 2
9 - 2 <= 3
8 * 4 <= 9
1 + 6 < 5
4 - 9 != 3
6 + 5 == 2
9 - 3 > 1
7 * 3 > 4
6 + 4 == 2
6 * 1 < 8
8 - 2 < 8
8 + 8 > 8
3 - 3 <= 0
4 - 6 <= 9
0 + 8 != 9
0 - 3 >= 7
3 - 6 >= 2
6 - 8 >= 9
6 + 4 >= 0
4 * 7 <= 8
6 * 4 >= 9
3 * 2 < 3
0 * 7 < 9
1 * 4 > 2
5 + 4 != 9
4 * 9 != 5
7 - 8 != 9
9 * 8 < 5
3 + 9 == 2
0 + 9 <= 2
```

Sample output 1

```
false
true
false
false
true
false
false
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true
true
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```

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```

```
true
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false
false
true
false
true
false
true
true
false
true
true
false
false
false
```

Sample input 2

```
3 + 8 > 9
0 + 3 <= 4
8 * 2 >= 0
7 + 8 == 6
1 + 3 == 8
6 - 7 != 8
4 - 5 == 4
5 - 8 <= 8
2 - 8 <= 6
1 * 2 >= 6
0 - 1 >= 7
9 + 0 >= 3
8 - 0 == 9
4 * 3 <= 3
3 - 2 > 3
1 - 7 > 6
3 - 8 < 0
7 + 1 <= 4
6 * 1 < 4
0 - 5 != 9
1 + 8 != 2
2 * 8 >= 3
4 - 8 > 8
0 + 3 <= 0
0 + 9 >= 9
3 + 4 >= 9
5 - 0 < 7
4 - 6 <= 7
9 * 1 < 6
9 * 8 < 4
1 * 5 <= 0
6 - 4 <= 6
5 * 0 >= 3
8 - 1 < 6
8 * 7 != 7
3 + 0 != 7
4 - 3 > 6
```

```
3 + 2 > 1
0 - 1 >= 4
4 * 6 == 9
4 + 6 != 8
4 + 8 <= 9
5 + 6 >= 2
4 + 1 <= 6
3 * 5 <= 2
9 + 5 >= 6
4 + 5 == 2
3 * 0 > 2
2 * 3 < 0
5 - 6 <= 3
4 - 2 >= 5
6 - 6 >= 8
4 - 0 >= 1
4 * 8 >= 6
2 - 7 != 7
9 * 1 > 1
4 * 2 <= 3
0 - 6 < 9
5 * 8 != 4
0 * 8 < 8
4 * 5 > 0
4 + 2 == 2
5 - 6 < 3
1 + 9 < 8
9 - 2 > 2
6 - 3 >= 7
2 + 0 >= 7
0 * 1 == 2
5 * 6 != 0
9 - 2 >= 5
0 - 2 == 5
4 + 5 != 8
2 + 9 <= 1
6 - 5 < 1
9 + 1 != 9
```

```
3 - 6 != 8
3 + 6 >= 1
3 * 2 < 6
2 - 8 < 9
9 - 6 == 2
7 - 8 < 4
9 * 3 >= 0
1 + 7 != 5
8 - 4 >= 5
2 + 0 <= 9
0 * 2 <= 9
6 + 8 == 7
3 * 2 <= 2
2 * 2 != 9
7 + 4 >= 4
0 + 2 == 2
1 - 6 > 8
7 + 5 == 0
2 * 6 < 9
8 - 9 >= 9
9 - 9 >= 6
3 - 6 >= 8
8 * 0 == 6
1 + 0 <= 2
3 + 3 != 7
```

Sample output 2

```
true
true
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false
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true
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```

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false
```

```
true
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false
false
false
false
false
false
true
true
```

Sample input 3

```
897 - 765 > 1
521 - 380 >= 969
184 - 104 > 909
378 + 582 == 583
241 * 159 >= 653
369 * 692 > 901
516 + 703 < 304
394 - 525 > 219
183 + 796 != 979
395 * 702 != 743
976 - 728 <= 106
380 * 214 == 920
114 + 543 >= 248
537 - 739 > 364
649 + 702 >= 913
681 * 959 >= 196
392 + 103 <= 872
900 + 65 <= 260
985 + 537 < 735
785 - 636 < 196
690 - 822 == 687
425 * 216 >= 525
412 * 263 <= 965
825 + 153 == 218
103 + 136 > 472
872 + 607 >= 19
494 - 572 >= 659
259 - 421 != 194
637 + 39 != 472
4 + 577 == 304
486 + 249 != 592
411 * 397 > 70
417 - 338 <= 517
997 - 328 <= 793
522 - 59 <= 644
532 * 57 >= 413
51 * 364 == 597
```

```
646 + 470 <= 730
231 - 932 > 829
138 + 766 < 673
559 - 417 > 930
751 * 184 == 639
287 + 923 >= 851
209 * 252 < 29
672 * 178 != 860
6 * 114 <= 588
788 * 956 <= 19
575 + 860 <= 835
498 + 384 >= 78
925 - 755 != 690
784 - 981 < 140
840 + 262 == 812
850 * 523 == 16
233 * 352 < 520
877 + 256 != 390
24 * 400 >= 51
89 - 900 <= 906
730 - 565 != 243
66 + 364 < 26
380 * 787 <= 605
306 * 885 < 249
965 + 124 > 56
175 * 309 == 595
215 * 884 < 176
126 + 398 < 816
114 * 328 >= 674
933 - 662 != 458
601 * 735 < 217
481 - 51 != 355
646 + 540 == 165
717 * 391 >= 527
898 - 779 <= 819
142 * 24 <= 45
172 + 207 < 510
424 - 100 != 869
```

```
456 + 254 == 341
109 - 688 > 206
905 * 124 > 313
943 + 161 == 700
898 * 795 < 427
995 - 505 < 385
64 + 196 > 927
228 - 329 <= 619
535 - 707 <= 574
19 + 88 != 950
788 - 779 >= 563
896 - 782 >= 52
857 - 293 >= 473
219 + 591 >= 267
209 * 467 <= 814
40 * 105 >= 496
54 * 264 < 570
828 * 527 < 509
269 * 663 > 900
826 + 561 != 710
828 * 864 != 230
677 - 856 != 535
41 * 832 < 49
91 + 158 == 122
357 + 969 <= 138
```

Sample output 3

```
true
false
false
false
true
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```

Problem information

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