

Compare Without Calculating

Advanced — ANSWER KEY

Reason about compensation.

Think: One more here and one less there keeps a sum equal. In subtraction, taking away less leaves more.

1. Use $<$, $>$, or $=$ to compare. Do NOT calculate — reason it out!

1) $147 + 147 = 146 + 148$

2) $273 + 28 = 274 + 27$

3) $201 - 11 > 201 - 12$

4) $100 - 39 < 100 - 38$

5) $258 - 33 > 258 - 34$

6) $118 + 47 = 119 + 46$

7) $195 + 195 = 194 + 196$

8) $192 + 45 = 193 + 44$

9) $100 - 37 < 100 - 36$

10) $79 + 79 = 78 + 80$

11) $146 + 57 = 147 + 56$

12) $199 + 58 = 200 + 57$

13) $64 - 31 > 64 - 32$

14) $100 - 51 < 100 - 50$

15) $101 + 101 = 100 + 102$

16) $53 + 53 = 52 + 54$

17) $202 - 42 > 202 - 43$

18) $286 + 286 = 285 + 287$

19) $265 + 55 = 266 + 54$

20) $169 + 18 = 170 + 17$

21) $93 + 93 = 92 + 94$

22) $103 - 58 > 103 - 59$

23) $211 + 211 = 210 + 212$

24) $241 - 52 > 241 - 53$

2. Explain your thinking.

Find a pair above where the two sides are EQUAL. Tell a friend WHY — without adding them up.

Compensation: if one number goes up a little and the other goes down by the same amount, the total is unchanged. And swapping the order of a sum never changes it.