Printable Algebra Rules Cheat Sheet: Operation Laws, Sign Rules, and Error-Check Practice

Worked example / complete source key

Simplify $-2(3x - 4) + 5x$ and check the result by substituting $x = 2$.

Answer: $-2(3x - 4) + 5x = -6x + 8 + 5x = -x + 8$. Substituting $x = 2$: original gives $-2(6 - 4) + 10 = -2(2) + 10 = -4 + 10 = 6$; simplified gives $-2 + 8 = 6$. Both equal 6, so the simplification is consistent.