



Rewriting expressions to reveal relationships

GRADE 7 MATH

Name _____

Date _____

Answer every item. Give the rewritten form AND say what it tells you. One skill: **rewriting expressions to reveal relationships**.

WORKED EXAMPLE

A price x rises by 5%. The new price is $x + 0.05x$, which simplifies to $1.05x$. Both are correct for every x , but they say different things. The first shows the **process** — start, then add 5%. The second shows the **result** — the new price is **105% of the old**, a single multiplication. Rewriting is done to reveal something, not to tidy up.

1. A price x rises by 5%. Write the new price two ways, and find it when $x = 200$.

APPLICATION

Show your thinking

Answer

2. A price x falls by 20%. Write the new price as a single multiplication, and find it when $x = 50$.

APPLICATION

Show your thinking

Answer

3. Explain what the number 1.05 tells you that $x + 0.05x$ does not.

REASONING

Show your thinking

Answer

4. A price rises 25%, then falls 20%. Write this as one multiplication and say what happens overall.

REASONING

Show your thinking

Answer