

Name: _____ Date: _____

Mid-Term Budget Repair

GRADE 7

MATHEMATICS

F1.3

B2.3

Budgets drift in small amounts that only show up when they are added across a term. Work out the weekly gap first, then multiply it, and the size of the problem becomes obvious.

PART A: WHERE THE GAP COMES FROM

1. Planned income \$45, actual \$39. Income is \$_____ short.
2. Planned spending \$20, actual \$26. Spending is \$_____ over.
3. Those two together change savings by \$_____.

PART B: REPAIR THE PLAN

4. Tesfaye's 10-week budget planned income of \$40 and spending of \$16 each week. After 4 weeks his spending has averaged \$22. If nothing changes, what will his term savings be, and how far below plan?

SHOW YOUR WORK

Answer: _____

5. To still reach \$240, what must he save in each of the remaining 6 weeks?

SHOW YOUR WORK

Answer: _____

6. Instead he cuts his weekly spending by 25% from \$22. What is his new weekly saving, and is it enough?

SHOW YOUR WORK

Answer: _____

PART C: PERCENT CHANGES COMPOUND

7. A budget behind at the halfway point can be repaired by:
- (A) raising income, cutting spending, or moving the target
 - (B) cutting spending and nothing else (C) moving the target and nothing else
8. Decreasing \$60 by 25% and then increasing the result by 25% gives:
- (A) \$56.25 (B) \$60.00 (C) \$63.75

PART D: WHY THEY DO NOT CANCEL

9. Explain why a 25% cut followed by a 25% rise does not bring you back to where you started. Use the numbers from Part C.

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ANSWER KEY

1. 6
2. 6
3. 12
4. He planned to save \$24 a week but is saving \$18, so he ends with \$180 rather than the planned \$240, \$60 below plan.
5. \$28 a week, because he has \$72 so far and needs \$168 more.
6. Spending falls to \$16.50 so he saves \$23.50 a week. That gives \$141 over 6 weeks and \$213 in total, still \$27 short.
7. A) raising income, cutting spending, or moving the target
8. A) \$56.25
9. The cut is taken from \$60 but the rise is taken from the reduced \$45, so the rise is worth less. \$60 falls to \$45, then rises by \$11.25 to \$56.25, leaving it \$3.75 below the start. A percent change always applies to whatever the amount is at that moment, not to the original.

TEACHER NOTES

Extension beyond the grade-level expectation: Part B costs two different repairs and finds that the more attractive one is not quite enough, which is the honest answer rather than a tidy one. Part D is the idea that makes percent budgeting counterintuitive, and it is worth the whole page if it lands.