LESSON MAKER PRO

Close or Far?

Estimate integer sums and differences to check results.

GRADE 6 · 6.N.2.1

6.N.2.1 "Estimate solutions for integer addition and subtraction of problems in order to assess the reasonableness of results."

NAME _____ DATE _____

ESTIMATE, THEN CHECK

Round each integer to the nearest ten, then add or subtract the rounded numbers. Compare a reported result with your estimate. A close result may be reasonable, but an estimate cannot prove it is exact.

WORKED EXAMPLE

Estimate -48 + 23 by rounding each integer to the nearest ten. Is a reported result of -25 reasonable?

1. -48 rounds to -50, and 23 rounds to 20.
2. -50 + 20 = -30.
3. -25 is 5 away from -30, so it is reasonable.

Answer: Estimate: -30. Yes, -25 is reasonable.

PRACTICE 6 problems

1 Estimate -67 + 32 by rounding each integer to the nearest ten.

ANSWER _____

2 Estimate 74 - 29 by rounding each integer to the nearest ten. Is a reported result of 45 reasonable?

ANSWER _____

3 Estimate -83 - 26 by rounding each integer to the nearest ten.

ANSWER _____

4 Estimate 58 + (-34) by rounding each integer to the nearest ten. Is a reported result of 92 reasonable?

ANSWER _____

5 Estimate -27 - (-62) by rounding each integer to the nearest ten. Is a reported result of 34 reasonable?

ANSWER _____

6 Estimate -92 + (-17) by rounding each integer to the nearest ten. Is a reported result of -109 reasonable?

ANSWER _____

APPLY IT Show your work

1 During a video game round, Maya's score changes by -38 points, then by 67 points. Estimate her total score change by rounding each change to the nearest ten. A teammate says the change is 29 points. Is that reasonable?

WORK SPACE

ANSWER _____

2 A club's balance is -$76 after paying for supplies. The club then spends $28 more. Estimate its new balance by rounding each dollar amount to the nearest ten. A member says the new balance is -$48. Is that reasonable?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game score starts at -46. You earn 73 points, then lose 28 points. Estimate the final score by rounding each integer to the nearest ten. A player claims the final score is 52. Is that reasonable? Explain using your estimate.

WORK SPACE AND ANSWER

ANSWER KEY

Close or Far?

GRADE 6 · 6.N.2.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Estimate -67 + 32 by rounding each integer to the nearest ten.	**-40**
2	Estimate 74 - 29 by rounding each integer to the nearest ten. Is a reported result of 45 reasonable?	**Estimate: 40. Yes, 45 is reasonable.**
3	Estimate -83 - 26 by rounding each integer to the nearest ten.	**-110**
4	Estimate 58 + (-34) by rounding each integer to the nearest ten. Is a reported result of 92 reasonable?	**Estimate: 30. No, 92 is not reasonable.**
5	Estimate -27 - (-62) by rounding each integer to the nearest ten. Is a reported result of 34 reasonable?	**Estimate: 30. Yes, 34 is reasonable.**
6	Estimate -92 + (-17) by rounding each integer to the nearest ten. Is a reported result of -109 reasonable?	**Estimate: -110. Yes, -109 is reasonable.**

PART 2 · APPLY IT

1. **Estimate: 30 points. Yes, 29 points is reasonable.** Round -38 to -40 and 67 to 70. Their sum is 30, which is close to 29.
2. **Estimate: -$110. No, -$48 is not reasonable.** Round -$76 to -$80 and $28 to $30. The estimated balance is -$80 - $30 = -$110, far from -$48.

CHALLENGE

Estimate: -10. No, 52 is not reasonable because it is far from -10.

Accept explanations that compare the reported result with the estimate. In problem 5, 34 is reasonable even though the exact result is 35.