

Estimate Checkpoint Answer Key

1. Estimate: $0 + 1 = 1$. Exact: $79/72 = 1 \frac{7}{72}$. Yes.
2. Estimate: $1/2 + 1 = 1 \frac{1}{2}$. Exact: $47/36 = 1 \frac{11}{36}$. Yes.
3. Estimate: $1 - 1/2 = 1/2$. Exact: $17/36$. Yes.
4. Estimate: $1/2 - 0 = 1/2$. Exact: $23/40$. Yes.
5. Estimate: $1/2 + 1 = 1 \frac{1}{2}$. Exact: $29/24 = 1 \frac{5}{24}$. Yes.
6. Estimate: $1 - 1/2 = 1/2$. Exact: $33/56$. Yes.

Teacher's Guide

- Quick implementation: Have students round each fraction before doing any exact calculations. After solving exactly, students should compare the size of the exact answer with their estimate.
- Differentiation: For support, provide the benchmarks 0, $1/2$, and 1 beside each problem. For a challenge, ask students to find the difference between the estimate and exact answer.
- Engagement: Have students predict which problem will have the closest estimate before solving, then check their prediction.
- Extension: Ask students to create a fraction-operation problem, estimate it using benchmarks, solve it exactly, and explain why the exact answer is reasonable.