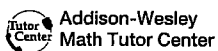


3.4 Exercises

FOR
EXTRA
HELP



≈ First estimate the answer. Then add to find the exact answer. Write answers as mixed numbers. See Examples 1 and 2.

1. Estimate:

$$\begin{array}{r} \leftarrow \text{Rounds to} \\ + \\ \hline \end{array}$$

Exact:

$$\left\{ \begin{array}{l} 5\frac{1}{2} \\ + 3\frac{1}{3} \\ \hline \end{array} \right.$$

2. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 6\frac{3}{5} \\ + 7\frac{1}{10} \\ \hline \end{array}$$

3. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 7\frac{1}{3} \\ + 4\frac{1}{6} \\ \hline \end{array}$$

4. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 10\frac{1}{4} \\ + 5\frac{5}{8} \\ \hline \end{array}$$

5. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} \frac{5}{8} \\ + 3\frac{7}{12} \\ \hline \end{array}$$

6. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 12\frac{4}{5} \\ + \frac{7}{10} \\ \hline \end{array}$$

7. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 24\frac{5}{6} \\ + 18\frac{5}{6} \\ \hline \end{array}$$

8. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 14\frac{6}{7} \\ + 15\frac{1}{2} \\ \hline \end{array}$$

9. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 33\frac{3}{5} \\ + 18\frac{1}{2} \\ \hline \end{array}$$

10. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 18\frac{5}{8} \\ + 6\frac{2}{3} \\ \hline \end{array}$$

11. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 22\frac{3}{4} \\ + 15\frac{3}{7} \\ \hline \end{array}$$

12. Estimate:

$$\begin{array}{r} + \\ \hline \end{array}$$

Exact:

$$\begin{array}{r} 7\frac{1}{4} \\ + 25\frac{7}{8} \\ \hline \end{array}$$

13. *Estimate:* *Exact:*

$$\begin{array}{r} 12\frac{8}{15} \\ 18\frac{3}{5} \\ + \\ \hline \end{array}$$

14. *Estimate:* *Exact:*

$$\begin{array}{r} 14\frac{9}{10} \\ 8\frac{1}{4} \\ + 13\frac{3}{5} \\ \hline \end{array}$$

≈ First estimate the answer. Then subtract to find the exact answer. Simplify all answers.
See Examples 1 and 3.

15. *Estimate:* *Exact:*

$$\begin{array}{r} 14\frac{7}{8} \\ - 12\frac{1}{4} \\ \hline \end{array}$$

16. *Estimate:* *Exact:*

$$\begin{array}{r} 14\frac{3}{4} \\ - 11\frac{3}{8} \\ \hline \end{array}$$

17. *Estimate:* *Exact:*

$$\begin{array}{r} 12\frac{2}{3} \\ - 1\frac{1}{5} \\ \hline \end{array}$$

18. *Estimate:* *Exact:*

$$\begin{array}{r} 11\frac{9}{20} \\ - 4\frac{3}{5} \\ \hline \end{array}$$

19. *Estimate:* *Exact:*

$$\begin{array}{r} 28\frac{3}{10} \\ - 6\frac{1}{15} \\ \hline \end{array}$$

20. *Estimate:* *Exact:*

$$\begin{array}{r} 15\frac{7}{20} \\ - 6\frac{1}{8} \\ \hline \end{array}$$

21. *Estimate:* *Exact:*

$$\begin{array}{r} 17 \\ - 6\frac{5}{8} \\ \hline \end{array}$$

22. *Estimate:* *Exact:*

$$\begin{array}{r} 22 \\ - 4\frac{5}{8} \\ \hline \end{array}$$

23. *Estimate:* *Exact:*

$$\begin{array}{r} 18\frac{3}{4} \\ - 5\frac{4}{5} \\ \hline \end{array}$$