

1.11

Estimating a Sum by Rounding

• Example 1

$$\begin{array}{r} 456 \\ 235 \\ 976 \\ + 344 \\ \hline 2011 \end{array} \quad \begin{array}{r} 500 \\ 200 \\ 1000 \\ + 300 \\ \hline 2000 \end{array} \leftarrow \text{Estimate}$$

↓ Begin by rounding to the nearest hundred

By rounding to the nearest hundred and adding quickly, we get an estimate or guess of 2000. Since this is close to the sum calculated, 2011, our answer seems reasonable.

● ● ● CHECK YOURSELF 1

Estimate the sum by rounding each addend to the nearest hundred then add.

$$287 + 526 + 311 + 378$$

● ● ● CHECK YOURSELF ANSWER

1. 1500.

1.11 Exercises

Name _____

Section _____

Date _____

A N S W E R S

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Estimate each sum by rounding each addend to the indicated place value. Then calculate the actual sum.

Round to the nearest ten.

$$\begin{array}{r} 1. \quad 58 \\ \quad 27 \\ + \underline{33} \end{array}$$

$$\begin{array}{r} 2. \quad 92 \\ \quad 37 \\ \quad 85 \\ + \underline{64} \end{array}$$

$$\begin{array}{r} 3. \quad 87 \\ \quad 53 \\ \quad 41 \\ \quad 93 \\ + \underline{62} \end{array}$$

$$\begin{array}{r} 4. \quad 78 \\ \quad 67 \\ \quad 53 \\ \quad 42 \\ + \underline{86} \end{array}$$

$$\begin{array}{r} 5. \quad 57 \\ \quad 73 \\ + \underline{62} \end{array}$$

$$\begin{array}{r} 6. \quad 93 \\ \quad 68 \\ \quad 75 \\ + \underline{62} \end{array}$$

Round to the nearest hundred.

$$\begin{array}{r} 7. \quad 687 \\ \quad 2320 \\ \quad \quad 573 \\ + \underline{435} \end{array}$$

$$\begin{array}{r} 8. \quad 480 \\ \quad 515 \\ \quad 693 \\ \quad 2560 \\ + \underline{727} \end{array}$$

$$\begin{array}{r} 9. \quad 379 \\ \quad 1215 \\ + \underline{528} \end{array}$$

$$\begin{array}{r} 10. \quad 967 \\ \quad 2365 \\ \quad \quad 544 \\ + \underline{738} \end{array}$$

$$\begin{array}{r}
 11. \quad 1378 \\
 \quad 519 \\
 \quad 792 \\
 + 2041 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 12. \quad 3145 \\
 \quad 889 \\
 \quad 259 \\
 \quad 692 \\
 + 2518 \\
 \hline
 \end{array}$$

Round each addend to the nearest thousand, then add.

$$\begin{array}{r}
 13. \quad 2,788 \\
 \quad 7,215 \\
 + 11,089 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 14. \quad 8,319 \\
 \quad 12,835 \\
 \quad 5,902 \\
 + 3,019 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 15. \quad 2238 \\
 \quad 3925 \\
 + 5217 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 16. \quad 3678 \\
 \quad 4215 \\
 + 2032 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 17. \quad 9137 \\
 \quad 2315 \\
 \quad 7643 \\
 + 3092 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 18. \quad 11,548 \\
 \quad 3,874 \\
 \quad 14,435 \\
 + 5,398 \\
 \hline
 \end{array}$$

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____