

MULTIPLICATION BY ESTIMATION

ANSWERS

HELPFUL EXAMPLES

A.

$$\begin{array}{r} 42 \rightarrow 40 \\ \times 3 \rightarrow \times 3 \\ \hline 120 \end{array}$$

ROUND THE TOP NUMBER SO THAT YOU CAN QUICKLY SEE WHAT THE APPROXIMATE ANSWER WILL BE.

B.

$$\begin{array}{r} 78 \rightarrow 80 \\ \times 35 \rightarrow \times 40 \\ \hline 3,200 \end{array}$$

ESTIMATE THE NUMBERS. MULTIPLY THE 8 AND 4, WHICH EQUALS 32. THEN PUT THE TWO ZEROS INTO THE FINAL ANSWER.

NOW YOUR TURN. MULTIPLY USING ESTIMATION. SHOW YOUR ESTIMATIONS.

$$\begin{array}{r} 1. \quad 51 \rightarrow 50 \\ \times 3 \rightarrow \times 3 \\ \hline 150 \end{array}$$

$$\begin{array}{r} 2. \quad 93 \quad 90 \\ \times 2 \quad \times 2 \\ \hline 180 \end{array}$$

$$\begin{array}{r} 3. \quad 37 \quad 40 \\ \times 7 \quad \times 7 \\ \hline 280 \end{array}$$

$$\begin{array}{r} 4. \quad 95 \quad 100 \\ \times 8 \quad \times 8 \\ \hline 800 \end{array}$$

$$\begin{array}{r} 5. \quad 28 \quad 30 \\ \times 9 \quad \times 9 \\ \hline 270 \end{array}$$

$$\begin{array}{r} 6. \quad 42 \quad 40 \\ \times 5 \quad \times 5 \\ \hline 200 \end{array}$$

$$\begin{array}{r} 7. \quad 68 \quad 70 \\ \times 4 \quad \times 4 \\ \hline 280 \end{array}$$

$$\begin{array}{r} 8. \quad 34 \quad 30 \\ \times 3 \quad \times 3 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 9. \quad 65 \quad 70 \\ \times 21 \quad \times 20 \\ \hline 1,400 \end{array}$$

$$\begin{array}{r} 10. \quad 33 \quad 30 \\ \times 51 \quad \times 50 \\ \hline 1,500 \end{array}$$

$$\begin{array}{r} 11. \quad 79 \quad 80 \\ \times 37 \quad \times 40 \\ \hline 3,200 \end{array}$$

$$\begin{array}{r} 12. \quad 12 \quad 10 \\ \times 94 \quad \times 90 \\ \hline 900 \end{array}$$

$$\begin{array}{r} 13. \quad 58 \quad 60 \\ \times 82 \quad \times 80 \\ \hline 4,800 \end{array}$$

$$\begin{array}{r} 14. \quad 99 \quad 100 \\ \times 35 \quad \times 40 \\ \hline 4,000 \end{array}$$

$$\begin{array}{r} 15. \quad 60 \quad 60 \\ \times 46 \quad \times 50 \\ \hline 3,000 \end{array}$$

$$\begin{array}{r} 16. \quad 23 \quad 20 \\ \times 87 \quad \times 90 \\ \hline 1,800 \end{array}$$

$$\begin{array}{r} 17. \quad 17 \quad 20 \\ 34 \quad 30 \\ \times 11 \quad \times 10 \\ \hline 6,000 \end{array}$$

MULTIPLY $2 \times 3 \times 1 = 6$. THEN PUT IN THE THREE 0's.

$$\begin{array}{r} 18. \quad 32 \quad 30 \\ 15 \quad 20 \\ \times 28 \quad \times 30 \\ \hline 18,000 \end{array}$$

$$\begin{array}{r} 19. \quad 8 \quad 10 \\ 34 \quad 30 \\ \times 33 \quad \times 30 \\ \hline 9,000 \end{array}$$

$$\begin{array}{r} 20. \quad 42 \quad 40 \\ 21 \quad 20 \\ \times 35 \quad \times 40 \\ \hline 32,000 \end{array}$$

$$\begin{array}{r} 21. \quad 19 \quad 20 \\ 13 \quad 10 \\ \times 41 \quad \times 40 \\ \hline 8,000 \end{array}$$

$$\begin{array}{r} 22. \quad 64 \quad 60 \\ 2 \quad 0 \\ \times 35 \quad \times 40 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 23. \quad 29 \quad 30 \\ 40 \quad 40 \\ \times 9 \quad \times 10 \\ \hline 12,000 \end{array}$$

$$\begin{array}{r} 24. \quad 53 \quad 50 \\ 18 \quad 20 \\ \times 25 \quad \times 30 \\ \hline 30,000 \end{array}$$

$$\begin{array}{r} 25. \quad 25 \quad 30 \\ 34 \quad 30 \\ \times 33 \quad \times 30 \\ \hline 27,000 \end{array}$$

$$\begin{array}{r} 26. \quad 31 \quad 30 \\ 12 \quad 10 \\ \times 38 \quad \times 40 \\ \hline 12,000 \end{array}$$

$$\begin{array}{r} 27. \quad 15 \quad 20 \\ 45 \quad 50 \\ \times 22 \quad \times 20 \\ \hline 20,000 \end{array}$$

$$\begin{array}{r} 28. \quad 77 \quad 80 \\ 89 \quad 90 \\ \times 3 \quad \times 0 \\ \hline 0 \end{array}$$