

NOTE: The number for each skill indicates the suggested grade level in which to teach it. Any errors in the process for a skill indicate the need to teach it. Fact errors are not really relevant, but if frequent, indicate the need for more Rocket Math facts practice.

SKILL 3b: Multiplying 1 digit times 2 digits; no renaming.

$$\begin{array}{r} 41 \\ \times 6 \\ \hline 246 \end{array} \quad \begin{array}{r} 40 \\ \times 7 \\ \hline 280 \end{array} \quad \begin{array}{r} 63 \\ \times 3 \\ \hline 189 \end{array}$$

SKILL 3c: Multiplying 1 digit times 2 digits; with renaming.

$$\begin{array}{r} 2 \\ 54 \\ \times 7 \\ \hline 368 \end{array} \quad \begin{array}{r} 4 \\ 87 \\ \times 6 \\ \hline 522 \end{array} \quad \begin{array}{r} 1 \\ 32 \\ \times 9 \\ \hline 288 \end{array}$$

SKILL 3d: Multiplying 1 digit times 2 digits; written horizontally.

$$7 \times 65 = \quad 94 \times 5 =$$

$$\begin{array}{r} 3 \\ 65 \\ \times 7 \\ \hline 455 \end{array} \quad \begin{array}{r} 2 \\ 94 \\ \times 5 \\ \hline 470 \end{array}$$

SKILL 3e: Reading and writing thousands numbers, using commas.

- a) Student reads to you b & c) Dictate so student can write
- 1 a) 3,034 b) 8,046 c) 1,048
- 2 a) 9,303 b) 1,908 c) 8,708
- 3 a) 6,002 b) 8,004 c) 7,009

SKILL 4a: Multiplying 1 digit times 3 digits; with renaming.

$$\begin{array}{r} 5 \quad 7 \\ 269 \\ \times 8 \\ \hline 2,152 \end{array} \quad \begin{array}{r} 2 \\ 891 \\ \times 3 \\ \hline 2,673 \end{array} \quad \begin{array}{r} 2 \quad 1 \\ 642 \\ \times 7 \\ \hline 4,494 \end{array}$$

SKILL 4b: Multiplying 1 digit times 3 digits; zero in tens column.

$$\begin{array}{r} 1 \\ 402 \\ \times 8 \\ \hline 3,216 \end{array} \quad \begin{array}{r} 901 \\ \times 7 \\ \hline 6,307 \end{array} \quad \begin{array}{r} 3 \\ 306 \\ \times 6 \\ \hline 1,836 \end{array}$$

SKILL 4c: Multiplying 1 digit times 3 digits; written horizontally.

$$5 \times 541 = \quad 367 \times 9 =$$

$$\begin{array}{r} 2 \\ 541 \\ \times 5 \\ \hline 2,705 \end{array} \quad \begin{array}{r} 6 \quad 6 \\ 367 \\ \times 9 \\ \hline 3,303 \end{array}$$

SKILL 4d: Multiplying 2 digits times 2 digits; with renaming.

$$\begin{array}{r} 2 \\ 3 \\ 85 \\ \times 57 \\ \hline 595 \\ 4250 \\ \hline 4,845 \end{array} \quad \begin{array}{r} 3 \\ 1 \\ 96 \\ \times 63 \\ \hline 288 \\ 5760 \\ \hline 6,048 \end{array}$$

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SKILL 4e: Multiplying a 2-digit factor times a 3-digit factor.

$$\begin{array}{r}
 \begin{array}{r}
 5 \ 1 \\
 4 \ 1 \\
 5 \ 8 \ 2 \\
 \times 7 \ 6 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 1 \ 1 \\
 3 \ 4 \ 9 \ 2 \\
 4 \ 0 \ 7 \ 4 \ 0 \\
 \hline
 4 \ 4,2 \ 3 \ 2
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{r}
 4 \ 1 \\
 2 \\
 3 \ 8 \ 2 \\
 \times 5 \ 3 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 1 \ 1 \\
 1 \ 1 \ 4 \ 6 \\
 1 \ 9 \ 1 \ 0 \ 0 \\
 \hline
 2 \ 0,2 \ 4 \ 6
 \end{array}
 \end{array}$$

SKILL 5a: Multiplying a 3-digit factor times a 3-digit factor.

$$\begin{array}{r}
 \begin{array}{r}
 2 \ 3 \\
 4 \ 5 \\
 3 \ 4 \\
 5 \ 6 \ 8 \\
 \times 4 \ 7 \ 5 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 1 \ 1 \\
 2 \ 8 \ 4 \ 0 \\
 3 \ 9 \ 7 \ 6 \ 0 \\
 2 \ 2 \ 7 \ 2 \ 0 \ 0 \\
 \hline
 2 \ 6 \ 9,8 \ 0 \ 0
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{r}
 3 \ 2 \\
 2 \ 1 \\
 8 \ 4 \ 3 \\
 \times 2 \ 8 \ 6 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 2 \ 1 \\
 5 \ 0 \ 5 \ 8 \\
 6 \ 7 \ 4 \ 4 \ 0 \\
 1 \ 6 \ 8 \ 6 \ 0 \ 0 \\
 \hline
 2 \ 4 \ 1,0 \ 9 \ 8
 \end{array}
 \end{array}$$

SKILL 5b: Multiplying 3 digits times 3 digits; zero in tens column of multiplier.

$$\begin{array}{r}
 \begin{array}{r}
 3 \ 4 \\
 2 \ 3 \\
 7 \ 5 \ 7 \\
 \times 6 \ 0 \ 5 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 3 \ 7 \ 8 \ 5 \\
 0 \ 0 \ 0 \ 0 \\
 4 \ 5 \ 4 \ 2 \ 0 \ 0 \\
 \hline
 4 \ 5 \ 7,9 \ 8 \ 5
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 \begin{array}{r}
 2 \ 1 \\
 1 \\
 8 \ 4 \ 3 \\
 \times 6 \ 0 \ 3 \\
 \hline
 \end{array} \\
 \begin{array}{r}
 2 \ 5 \ 2 \ 9 \\
 0 \ 0 \ 0 \ 0 \\
 5 \ 0 \ 5 \ 8 \ 0 \ 0 \\
 \hline
 5 \ 0 \ 8,3 \ 2 \ 9
 \end{array}
 \end{array}$$