

# Key for Practice Arithmetic Gateway Exam

$$1. \begin{array}{r} 68 \\ +73 \\ \hline 141 \end{array}$$

$$2. \begin{array}{r} 57,444 \\ 98,037 \\ 4,002 \\ +19,019 \\ \hline 178,502 \end{array}$$

$$3. \begin{array}{r} 211 \\ 3 \times 6 \\ -84 \\ \hline 232 \end{array}$$

$$4. \begin{array}{r} 1138 \phantom{00} \\ 239,00 \times \\ -56,948 \\ \hline 182,053 \end{array}$$

$$5. \begin{array}{r} 738 \\ \times 9 \\ \hline 6,642 \end{array}$$

$$6. \begin{array}{r} 624 \\ \times 705 \\ \hline 3120 \\ 436800 \\ \hline 439,920 \end{array}$$

$$7. \begin{array}{r} 649 \\ 7 \overline{)4,543} \\ \underline{42} \phantom{00} \\ 34 \phantom{00} \\ \underline{28} \phantom{00} \\ 63 \phantom{00} \\ \underline{63} \phantom{00} \\ 0 \end{array}$$

$$8. \begin{array}{r} 9,893 R4 \text{ or } 9,893 \frac{4}{29} \\ 29 \overline{)286,901} \\ \underline{261} \phantom{00} \\ 259 \phantom{00} \\ \underline{232} \phantom{00} \\ 270 \phantom{00} \\ \underline{261} \phantom{00} \\ 91 \phantom{00} \\ \underline{87} \phantom{00} \\ 4 \end{array}$$

$$9. \frac{4}{5} + \frac{2}{5} = \frac{6}{5} = 1\frac{1}{5}$$

$$10. \frac{7}{8} + \frac{7}{12} = \frac{21}{24} + \frac{14}{24} = \frac{35}{24} = 1\frac{11}{24}$$

$$11. 3\frac{1}{5} + 5\frac{2}{3} = 3\frac{3}{15} + 5\frac{10}{15} = 8\frac{13}{15}$$

$$12. \frac{4}{7} - \frac{2}{7} = \frac{2}{7}$$

$$13. \frac{8}{9} - \frac{5}{6} = \frac{16}{18} - \frac{15}{18} = \frac{1}{18}$$

$$14. 7\frac{2}{3} - 6\frac{1}{4} = 7\frac{8}{12} - 6\frac{3}{12} = 1\frac{5}{12}$$

$$15. \begin{aligned} 8\frac{1}{6} - 2\frac{3}{7} &= 8\frac{7}{42} - 2\frac{18}{42} \\ &= 7\frac{49}{42} - 2\frac{18}{42} \\ &= 5\frac{31}{42} \end{aligned}$$

$$16. \frac{4}{11} \times \frac{33}{52} = \frac{1}{1} \times \frac{3}{13} = \frac{3}{13}$$

$$17. \begin{aligned} 1\frac{3}{8} \times 2\frac{2}{5} &= \frac{11}{8} \times \frac{12}{5} = \frac{11}{2} \times \frac{3}{5} \\ &= \frac{33}{10} = 3\frac{3}{10} \end{aligned}$$

$$18. \begin{aligned} \frac{5}{8} \div \frac{15}{28} &= \frac{5}{8} \cdot \frac{28}{15} \\ &= \frac{1}{2} \cdot \frac{7}{3} = \frac{7}{6} = 1\frac{1}{6} \end{aligned}$$

$$19. \begin{aligned} 4\frac{1}{3} \div 2\frac{2}{5} &= \frac{13}{3} \div \frac{12}{5} \\ &= \frac{13}{3} \cdot \frac{5}{12} = \frac{65}{36} = 1\frac{29}{36} \end{aligned}$$

$$20. \begin{array}{r} 8.312 \\ -5 \\ \hline 3.312 \end{array}$$

$$21. \begin{array}{r} 16 \\ 0.041 \\ +2.3 \\ \hline 18.341 \end{array}$$

$$\begin{array}{r}
 22. \quad 36.2 \\
 \times 2.9 \\
 \hline
 3258 \\
 7240 \\
 \hline
 104.98
 \end{array}$$

$$\begin{array}{r}
 23. \quad 0.7 \overline{) 1.6576} \\
 \underline{14} \phantom{00} \\
 25 \phantom{00} \\
 \underline{21} \phantom{00} \\
 47 \phantom{00} \\
 \underline{42} \phantom{00} \\
 56 \phantom{00} \\
 \underline{56} \\
 0
 \end{array}$$

$$\begin{array}{r}
 24. \quad 750 \\
 \times 0.008 \\
 \hline
 6.000 \text{ or } 6
 \end{array}$$

$$\begin{array}{l}
 25. \quad 16\frac{2}{3}\% \text{ of } \$2400 \\
 \frac{1}{6} \times \frac{2400}{1} = \$400
 \end{array}$$

$$\text{Note: } 16\frac{2}{3}\% = \frac{50}{3}\% = \frac{50}{300} = \frac{1}{6}$$

$$\begin{array}{r}
 26. \quad 230\% \text{ of } 700 \\
 \frac{230}{100} \times 700 \\
 \hline
 1610
 \end{array}$$

$$\begin{array}{l}
 27. \quad N \times 45 = 15 \\
 N = \frac{15}{45} = \frac{1}{3} = 33\frac{1}{3}\%
 \end{array}$$

$$\begin{array}{l}
 28. \quad N \times 17 = 8 \\
 N = \frac{8}{17}
 \end{array}$$

$$\begin{array}{l}
 29. \quad 0.8N = 70 \\
 N = \frac{70}{0.8}
 \end{array}$$

$$\begin{array}{r}
 0.47 \\
 17 \overline{) 8.00} \\
 \underline{68} \phantom{00} \\
 120 \phantom{00} \\
 \underline{119} \phantom{00} \\
 1
 \end{array}$$

$$\begin{array}{r}
 87.5 \\
 0.8 \overline{) 70.00} \text{ or } 87\frac{1}{2} \\
 \underline{64} \phantom{00} \\
 60 \phantom{00} \\
 \underline{56} \phantom{00} \\
 40 \phantom{00} \\
 \underline{40} \\
 0
 \end{array}$$

$$N = 47\frac{1}{17}\%$$