

Common Core 7
Study Guide

Write your final answer on the line. If you finish early, carefully check your work and your final answer. If you have time, explain your work and your answer. Use inverse operations to check your answer and use estimation to check whether your answer is reasonable. Use the time you are given to show me what you have mastered.

Convert the decimal into a fraction or mixed number in simplest form. Clearly show your work.

$\frac{7}{10}$ 1. .7

$\frac{12}{25}$ 2. .48

Convert the fraction into a decimal. Clearly show your work.

0.66 3. $\frac{2}{3}$

$$\begin{array}{r} 0.6666 \\ 3 \overline{) 2.0000} \\ \underline{-18} \\ 20 \\ \underline{-18} \\ 20 \\ \underline{-18} \\ 20 \end{array}$$

$$\begin{array}{r} 0.625 \\ 8 \overline{) 5.000} \\ \underline{-48} \\ 20 \\ \underline{-16} \\ 40 \end{array}$$

0.625 4. $\frac{5}{8}$

Perform the indicated operation. Reduce if necessary. Clearly show your work.

1 5. $\frac{2}{5} + \frac{3}{5}$

$\frac{53}{56}$ 6. $\frac{4}{7} + \frac{3}{8}$
 $\frac{32}{56} + \frac{21}{56} = \frac{53}{56}$

$4\frac{3}{14} = \frac{59}{14}$ 7. $2\frac{1}{2} + 1\frac{5}{7}$
 $2\frac{7}{14} + 1\frac{10}{14}$
 $3\frac{17}{14} = 3 + 1\frac{3}{14} = 4\frac{3}{14} = \frac{59}{14}$

$-6\frac{1}{12} = -\frac{73}{12}$ 8. $-3\frac{3}{4} - 2\frac{1}{3}$
 $-3\frac{9}{12} - 2\frac{4}{12}$
 $-5\frac{13}{12} = -6\frac{1}{12} = -\frac{73}{12}$

$\frac{11}{6} = 1\frac{5}{6}$ 9. $4\frac{1}{3} - 2\frac{1}{2}$
 $\frac{13}{3} - \frac{5}{2} = \frac{26}{6} - \frac{15}{6} = \frac{11}{6} = 1\frac{5}{6}$

$2\frac{1}{7} = \frac{15}{7}$ 10. $3 - \frac{6}{7}$
 $2\frac{7}{7} - \frac{6}{7} = 2\frac{1}{7} = \frac{15}{7}$

$$\frac{-54}{5} = \frac{-29}{5} \quad 11. \quad -3\frac{3}{5} + \left(-2\frac{2}{10}\right)$$

$$-3\frac{6}{10} + \left(-2\frac{2}{10}\right) = -5\frac{8}{10} = -5\frac{4}{5} = \frac{-29}{5}$$

$$\frac{2}{7} \quad 12. \quad -\frac{3}{7} + \frac{5}{7}$$

$$\frac{-17}{9} = -1\frac{8}{9} \quad 13. \quad 1\frac{2}{9} - 3\frac{1}{9}$$

$$\frac{11}{9} - \frac{28}{9} = \frac{-17}{9} = -1\frac{8}{9}$$

$$\frac{-25}{8} = \frac{-21}{8} \quad 14. \quad -\frac{3}{8} - 2\frac{1}{4}$$

$$-\frac{3}{8} - 2\frac{2}{8} = -2\frac{5}{8} = \frac{-21}{8}$$

$$\frac{-32}{15} = \frac{-47}{15} \quad 15. \quad \frac{6}{9} - \left(3\frac{4}{5}\right)$$

$$\frac{6}{9} - \frac{19}{5} = \frac{30}{45} - \frac{171}{45} = \frac{-141}{45} = -3\frac{6}{45} = -3\frac{2}{15} = \frac{-47}{15}$$

$$\frac{1}{4} \quad 16. \quad \frac{1}{8} \cdot \frac{8}{164}$$

$$\frac{-3}{2} = -1\frac{1}{2} \quad 17. \quad \left(-2\frac{1}{3}\right)\left(\frac{9}{14}\right)$$

$$-\frac{7}{3} \cdot \frac{9}{14} = \frac{-7 \cdot 9}{3 \cdot 14} = \frac{-63}{42} = \frac{-3}{2}$$

$$\frac{9}{32} \quad 18. \quad \left(-\frac{3}{4}\right)\left(\frac{-3}{8}\right)$$

$$\frac{8}{5} = 1\frac{3}{5} \quad 19. \quad -1\frac{1}{3} \div \left(-\frac{5}{6}\right)$$

$$-\frac{4}{3} \cdot \frac{6}{5} = \frac{-4 \cdot 6}{3 \cdot 5} = \frac{-24}{15} = \frac{-8}{5} = \frac{8}{5}$$

$$\frac{-13}{7} = -1\frac{6}{7} \quad 20. \quad -4\frac{1}{3} \div 2\frac{1}{3}$$

$$-\frac{13}{3} \div \frac{7}{3} = \frac{-13}{3} \cdot \frac{3}{7} = \frac{-13}{7}$$