

9A

1) done

2) done

$$\begin{array}{r} 1+.4 \\ \times 1+.2 \\ \hline .2+.08 \\ 1+.4 \\ \hline 1+.6+.08 \end{array} \qquad \begin{array}{r} 1.4 \\ \times 1.2 \\ \hline .28 \\ 1.4 \\ \hline 1.68 \end{array}$$

$$\begin{array}{r} 4) \quad 1+.1 \\ \times \quad .6 \\ \hline .6+.06 \end{array} \qquad \begin{array}{r} 1.1 \\ \times \quad .6 \\ \hline .66 \end{array}$$

$$\begin{array}{r} 5) \quad 1+.2 \\ \times 2+.1 \\ \hline .1+.02 \\ 2+.4 \\ \hline 2+.5+.02 \end{array} \qquad \begin{array}{r} 1.2 \\ \times 2.1 \\ \hline .12 \\ 2.4 \\ \hline 2.52 \end{array}$$

$$\begin{array}{r} 6) \quad 2+.2 \\ \times \quad .3 \\ \hline .6+.06 \end{array} \qquad \begin{array}{r} 2.2 \\ \times \quad .3 \\ \hline .66 \end{array}$$

$$\begin{array}{r} 7) \quad 1+.3 \\ \times 1+.1 \\ \hline .1+.03 \\ 1+.3 \\ \hline 1+.4+.03 \end{array} \qquad \begin{array}{r} 1.3 \\ \times 1.1 \\ \hline .13 \\ 1.3 \\ \hline 1.43 \end{array}$$

$$\begin{array}{r} 8) \quad 2+.3 \\ \times \quad .2 \\ \hline .4+.06 \end{array} \qquad \begin{array}{r} 2.3 \\ \times \quad .2 \\ \hline .46 \end{array}$$

9) $3.1 \times .3 = .93$

10) $2.1 \times .4 = .84$

9B

$$\begin{array}{r} 1) \quad 2+.8 \\ \times 1+.0 \\ \hline .0+.00 \\ 2+.8 \\ \hline 2+.8+.00 \end{array} \qquad \begin{array}{r} 2.8 \\ \times 1.0 \\ \hline .00 \\ 2.8 \\ \hline 2.80 \end{array}$$

- 2) .23
3) 2.94
4) .88
5) 2.64
6) .39
7) 1.69
8) .99
9) $2.6 \times 1.1 = 2.86$
10) $1.1 \times .5 = .55$

9C

$$\begin{array}{r} 1) \quad 1+.3 \\ \times 2+.2 \\ \hline .2+.06 \\ 2+.6 \\ \hline 2+.8+.06 \end{array} \qquad \begin{array}{r} 1.3 \\ \times 2.2 \\ \hline .26 \\ 2.6 \\ \hline 2.86 \end{array}$$

- 2) .2
3) 1.56
4) 1.26
5) 2.94
6) .84
7) 2.53
8) .09
9) $3.2 \times .1 = .32$ miles
10) $.4 \times .2 = .08$

9D

$$\begin{array}{r} 1) \quad 2+.5 \\ \times 1+.1 \\ \hline .2+.05 \\ 2+.5 \\ \hline 2+.7+.05 \end{array} \qquad \begin{array}{r} 2.5 \\ \times 1.1 \\ \hline .25 \\ 2.5 \\ \hline 2.75 \end{array}$$

- 2) 2.99
3) .55
4) .04
5) 900
6) 8,000
7) 2,400
8) cg
9) ml
10) km
11) dkl
12) dl
13) kg
14) done
15) done
16) $5\frac{3}{12} - 1\frac{8}{12} = 4\frac{15}{12} - 1\frac{8}{12} = 3\frac{7}{12}$
17) $3\frac{1}{2} - \frac{1}{3} = 3\frac{3}{6} - \frac{2}{6} = 3\frac{1}{6}$
18) $3.3 \times .3 = .99$ pies eaten
 $3.3 - .99 = 2.31$ pies left over

9E

$$1) \quad \begin{array}{r} 2 + .4 \\ \times .2 \\ \hline .4 + .08 \end{array} \quad \begin{array}{r} 2.4 \\ \times .2 \\ \hline .48 \end{array}$$

2) 1.98

3) .17

4) .01

5) 280,000

6) 3,600

7) 500

8) meter

9) quart

10) gram

11) $7\frac{6}{15} - 3\frac{5}{15} = 4\frac{1}{15}$

12) $9 - 2\frac{1}{2} = 8\frac{2}{2} - 2\frac{1}{2} = 6\frac{1}{2}$

13) $6\frac{7}{14} - 4\frac{2}{14} = 2\frac{5}{14}$

14) $7\frac{1}{2} - 1\frac{1}{4} = 7\frac{2}{4} - 1\frac{1}{4} = 6\frac{1}{4}$ dollars; or \$6.25

If one fraction can be made into an equivalent fraction with the same denominator as the other, you don't have to use the rule of four. The final result is the same.

15) $4.4 \times .1 = .44$

16) $45.15 + 34.1 + 7.05 = 86.3$ pounds

17) $6 \times 1,000 = 6,000$

18) a meter is a little more than a yard, so he ran faster in the 100 meter dash

9F

$$1) \quad \begin{array}{r} 2 + .3 \\ \times .3 \\ \hline .6 + .09 \end{array} \quad \begin{array}{r} 2.3 \\ \times .3 \\ \hline .69 \end{array}$$

2) 2.73

3) .88

4) .08

5) 140

6) 2,000

7) 110

8) pounds

9) ounce

10) kilometer

11) $10\frac{4}{12} - 4\frac{3}{12} = 6\frac{1}{12}$

12) $6 - 1\frac{2}{3} = 5\frac{3}{3} - 1\frac{2}{3} = 4\frac{1}{3}$

13) $13\frac{6}{30} - 8\frac{25}{30} = 12\frac{36}{30} - 8\frac{25}{30} = 4\frac{11}{30}$

14) $1 \times 1,000 = 1,000$ g

15) $1,000 \div 1,000 = 1$ kg

16) $1.1 \times .5 = .55$ pounds

17) $8 \times 1,000 = 8,000$

18) $7 - 2.3 = 4.7$ min.

10A

$$1) \quad \begin{array}{r} \text{done} \\ \text{done} \\ 3) \quad \begin{array}{r} 35. \\ \times 26 \\ \hline 210 \\ 70 \\ \hline 910 \end{array} \end{array} \quad \begin{array}{r} 35 \\ \times 26 \\ \hline 210 \\ 70 \\ \hline 910 \end{array} \quad \begin{array}{l} 0 \text{ places} \\ + 2 \text{ places} \\ 2 \text{ places} \end{array}$$

$$4) \quad \begin{array}{r} 1.03 \\ \times 76 \\ \hline .0618 \\ 721 \\ \hline 7828 \end{array} \quad \begin{array}{r} 103 \\ \times 76 \\ \hline 618 \\ 721 \\ \hline 7828 \end{array} \quad \begin{array}{l} 2 \text{ places} \\ + 2 \text{ places} \\ 4 \text{ places} \end{array}$$

$$5) \quad \begin{array}{r} 4.7 \\ \times .6 \\ \hline 282 \end{array} \quad \begin{array}{r} 47 \\ \times 6 \\ \hline 282 \end{array} \quad \begin{array}{l} 1 \text{ place} \\ + 1 \text{ place} \\ 2 \text{ places} \end{array}$$

$$6) \quad \begin{array}{r} .52 \\ \times 14 \\ \hline .0208 \\ 52 \\ \hline .0728 \end{array} \quad \begin{array}{r} 52 \\ \times 14 \\ \hline 208 \\ 52 \\ \hline .0728 \end{array} \quad \begin{array}{l} 2 \text{ places} \\ + 2 \text{ places} \\ 4 \text{ places} \end{array}$$

$$7) \quad \begin{array}{r} 200. \\ \times .08 \\ \hline 16.00 \end{array} \quad \begin{array}{r} 200 \\ \times 08 \\ \hline 1600 \end{array} \quad \begin{array}{l} 0 \text{ places} \\ + 2 \text{ places} \\ 2 \text{ places} \end{array}$$

$$8) \quad \begin{array}{r} 5.28 \\ \times 12 \\ \hline .1056 \\ 528 \\ \hline .6336 \end{array} \quad \begin{array}{r} 528 \\ \times 12 \\ \hline 1056 \\ 528 \\ \hline .6336 \end{array} \quad \begin{array}{l} 2 \text{ places} \\ + 2 \text{ places} \\ 4 \text{ places} \end{array}$$

9) $\$6.55 \times .4 = \2.62

10) $\$.96 \times 2.5 = \2.40

(note: although we don't usually include an ending 0 in decimals, it is customary to include hundredths when we are referring to money.)