

Math 303

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$$\begin{array}{r} \#4. \quad 1.0156 \\ \quad \times 27.32 \\ \hline \quad 20312 \\ \quad 30468 \\ \quad 71092 \\ \quad 20312 \\ \hline 27.746192 \end{array}$$

The value of \$27,32 American was worth \$27.746192. A business would give you \$27.74 in value.

$$\begin{array}{r} \#5. (a) \quad 24 \\ \quad \quad 3.6 \\ \hline \quad 144 \\ \quad 72 \\ \hline 86.4 \end{array} \quad \begin{array}{r} 0.06715 \\ \times 86.4 \\ \hline 26860 \\ 40290 \\ \hline 53720 \\ \hline 5.801760 \end{array}$$

The cost of heating her house for one day is \$5.80176, approximately \$5.80.

$$\begin{array}{r} \#5. (b) \quad 0.06715 \\ \quad \quad 0.075 \\ \hline \quad 33575 \\ \quad 47005 \\ \hline 0.00503625 \end{array}$$

$$\begin{array}{r} 0.00503625 \overline{) 1.00000000.0} \\ \underline{-503625} \\ 4963750 \\ \underline{-4532625} \\ 4311250 \\ \underline{-4029000} \\ 2822500 \\ \underline{-2518125} \\ 304375 \end{array}$$

The lightbulb would have to be on for about $198\frac{1}{2}$ hours.

$$\begin{array}{r} \#6. \quad 4.224 \overline{) 36.500.00} \\ \quad \quad \underline{-33792} \\ \quad \quad 27080 \\ \quad \quad \underline{-25344} \\ \quad \quad 17360 \\ \quad \quad \underline{-16896} \\ \quad \quad 464 \end{array}$$

Thirty-six and five tenths cups is approximately 8.64 liters.

#8 (b)

0.3, 0.5, 0.7, 0.9, 1.1, 1.3, 1.5, 1.7, ...
The difference is 0.2.

#12. (a) $0.3 \div 0.31 \approx 1$
(b) $0.3 \times 0.31 \approx 0.09$



#14. (a) $3.2 \times 10^{-9} = 0.0000000032$
(b) $3.2 \times 10^9 = 3,200,000,000$
(c) $4.2 \times 10^{-1} = 0.42$
(d) $6.2 \times 10^5 = 620,000$

#15. (a) $12,700,000 = 1.27 \times 10^7$
(b) $4,486,000,000 = 4.486 \times 10^9$
(c) $50,000,000 = 5 \times 10^7$

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#16. (a) $7.53 \times 10^{-10} = 0.000000000753$

(b) $2.98 \times 10^5 = 298,000$

(c) $7.78570000 \times 10^8 = 778,570,000$

#17. (a) $(8 \times 10^{12})(6 \times 10^{15}) = 48 \times 10^{27} = 4.8 \times 10^{28}$

(b) $\frac{16 \times 10^{12}}{4 \times 10^5} = 4 \times 10^7$

(c) $\frac{(5 \times 10^8)(6 \times 10^9)}{15 \times 10^{15}} = \frac{30 \times 10^{17}}{15 \times 10^{15}} = 2 \times 10^2$

#27. (a) $7 \div 0.25 = 7 \div \frac{1}{4} = 7 \cdot 4 = 28$

(b) $70 \div 2.5 = (7 \times 10) \div (0.25 \times 10) = 7 \div 0.25 = 28$

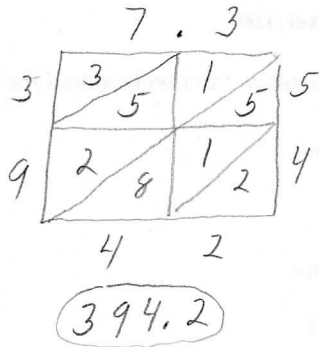
(c) $0.7 \div 0.25 = 2.8$

(d) $700 \div 25 = (7 \times 100) \div (0.25 \times 100) = 7 \div 0.25 = 28$

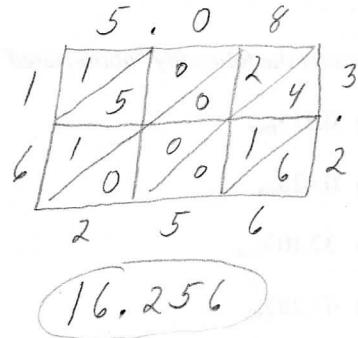
Note (a), (b) and (d) are equal.

Worksheet

#4. (a)



(c)



(f) $0.4 \overline{) 211.6}$

$$\begin{array}{r} 529. \\ -20 \\ \hline 11 \\ -8 \\ \hline 36 \\ -36 \\ \hline \end{array}$$

(g) $1.6 \overline{) 48.0}$

$$\begin{array}{r} 30. \\ -48 \\ \hline 0 \end{array}$$

(i) $0.56 \overline{) 340.}$

$$\begin{array}{r} 340. \\ -168 \\ \hline 224 \\ -224 \\ \hline \end{array}$$