

SOLUTIONS

12. (a) Perimeter = $13 \text{ mm} + 15 \text{ mm}$
 $+ 14 \text{ mm} = 42 \text{ mm}$

(b) Area = $\frac{(14 \text{ mm})(12 \text{ mm})}{2} = 84 \text{ mm}^2$

13. (a) 0.00067

(b) 100.023

14. $2\pi r = 2(3.14)(10)$
 $= 2(31.4) = 62.8$

15. $\frac{3}{5} \cdot \frac{14}{14} = \frac{42}{70}$
 $\frac{1}{2} \cdot \frac{35}{35} = \frac{35}{70}$
 $\frac{5}{7} \cdot \frac{10}{10} = \frac{50}{70}$
 $\frac{35}{70} \cdot \frac{42}{70} \cdot \frac{50}{70}$

16. Area = $(5.6 \text{ cm})(3.4 \text{ cm}) = 19.04 \text{ cm}^2$

17. $\frac{x}{2.4} = \frac{10}{16}$
 $16x = 2.4(10)$
 $x = \frac{24}{16}$
 $x = 1 \frac{8}{16} = 1 \frac{1}{2} = 1.5$

18. $\frac{18}{8} = \frac{m}{20}$
 $8m = 18 \cdot 20$
 $m = \frac{360}{8}$
 $m = 45$

19. $\begin{array}{r} 7.8^{\circ}0 \\ - 3.4^{\circ}5 \\ \hline 4.1^{\circ}5 \end{array}$
 $a = 4.15$

20. $\begin{array}{r} 0.048 \\ 3 \overline{)0.144} \\ \underline{12} \\ 24 \\ \underline{24} \\ 0 \end{array}$
 $y = 0.048$

21. $\begin{array}{r} 0.925 \\ 8 \overline{)7.400} \\ \underline{72} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \\ 0 \end{array}$

22. $\begin{array}{r} 0.4 \quad 0.24 \\ \times 0.6 \quad \times 0.02 \\ \hline 0.24 \quad 0.0048 \end{array}$

23. $\begin{array}{r} 0.863 \\ 5 \overline{)4.315} \\ \underline{40} \\ 31 \\ \underline{30} \\ 15 \\ \underline{15} \\ 0 \end{array}$

24. $\begin{array}{r} 0.065 \\ 100 \overline{)6.500} \\ \underline{600} \\ 500 \\ \underline{500} \\ 0 \end{array}$

25. $3 \frac{1}{3} = 3 \frac{4}{12}$
 $1 \frac{5}{6} = 1 \frac{10}{12}$
 $+ \frac{7}{12} = \frac{7}{12}$
 $4 \frac{21}{12} = 5 \frac{9}{12} = 5 \frac{3}{4}$

26. $4 \longrightarrow 3 \frac{4}{4}$
 $- 1 \frac{1}{4} \quad - 1 \frac{1}{4}$
 $\hline 2 \frac{3}{4}$
 $4 \frac{1}{6} = 4 \frac{2}{12} \longrightarrow 3 \frac{14}{12}$
 $- 2 \frac{3}{4} = 2 \frac{9}{12} \quad - 2 \frac{9}{12}$
 $\hline 1 \frac{5}{12}$

27. $3 \frac{1}{5} \cdot 2 \frac{5}{8} \cdot 1 \frac{3}{7}$
 $= \frac{16}{5} \cdot \frac{21}{8} \cdot \frac{10}{7} = 12$