

Module 1 Review Solutions

$$1. \frac{3}{4} + \frac{4}{9} \rightarrow \frac{3}{4} \left(\frac{9}{9} \right) + \frac{4}{9} \left(\frac{4}{4} \right) = \frac{27}{36} + \frac{16}{36} = \frac{43}{36} = 1 \frac{7}{36}$$

$$2. 2 \frac{9}{11} - 1 \frac{2}{3} \rightarrow \frac{31}{11} - \frac{5}{3} \rightarrow \frac{31}{11} \left(\frac{3}{3} \right) - \frac{5}{3} \left(\frac{11}{11} \right) = \frac{93}{33} - \frac{55}{33} = \frac{38}{33} = 1 \frac{5}{33}$$

$$3. \frac{4}{5} \cdot \frac{15}{28} = \frac{\cancel{4}}{\cancel{5}} \cdot \frac{3 \cdot \cancel{5}}{7 \cdot \cancel{4}} = \frac{1}{1} \cdot \frac{3}{7} = \frac{3}{7}$$

$$4. 1 \frac{9}{16} \div \frac{5}{8} = \frac{25}{16} \cdot \frac{8}{5} = \frac{\cancel{5} \cdot \cancel{8}}{\cancel{8} \cdot \cancel{2}} \cdot \frac{8}{\cancel{5}} = \frac{5}{2} \cdot \frac{1}{1} = \frac{5}{2} = 2 \frac{1}{2}$$

$$5. \frac{2}{3} = \frac{2}{3} \left(\frac{2}{2} \right) = \frac{4}{6} = \frac{2}{3} \left(\frac{3}{3} \right) = \frac{6}{9} = \frac{2}{3} \left(\frac{4}{4} \right) = \frac{8}{12}$$

$$6. \frac{5}{7} - \frac{1}{2} \rightarrow \frac{5}{7} \left(\frac{2}{2} \right) - \frac{1}{2} \left(\frac{7}{7} \right) = \frac{10}{14} - \frac{7}{14} = \frac{3}{14} \text{ of a gallon}$$

$$7. A_{\square} = \text{length} \cdot \text{width} = 13 \frac{3}{7} \cdot 10 \frac{1}{2} = \frac{94}{7} \cdot \frac{21}{2} = \frac{\cancel{47} \cdot \cancel{2}}{\cancel{7}} \cdot \frac{7 \cdot 3}{\cancel{2}} = 47 \cdot 3 = 141 \text{ ft}^2$$

$$8. \text{Points per problem} : \frac{100}{20} = 5$$

$$\text{Full Credit points earned} : 12(5) = 60$$

$$\frac{3}{4} \text{ Credit points earned} : 6(5) \left(\frac{3}{4} \right) = \frac{90}{4} = 22 \frac{1}{2}$$

$$\frac{1}{4} \text{ Credit points earned} : 2(5) \left(\frac{1}{4} \right) = \frac{10}{4} = 2 \frac{1}{2}$$

$$\text{Total of points Tonya earned} : 60 + 22 \frac{1}{2} + 2 \frac{1}{2} = 85 \text{ points}$$

$$9. \text{Miles traveled} : \frac{1}{4}(420) = 105 \text{ miles}$$

$$\text{Miles remaining} : 420 - 105 = 315 \text{ miles from beach}$$

$$10. a.) \frac{1}{2} > \frac{4}{9}$$

since

$$\frac{9}{18} > \frac{8}{18}$$

$$b.) \frac{5}{3} < \frac{7}{4}$$

since

$$\frac{20}{12} < \frac{21}{12}$$

$$c.) \frac{3}{11} > \frac{4}{15}$$

since

$$\frac{45}{165} > \frac{44}{165}$$

$$d.) \frac{18}{36} = \frac{14}{28}$$

since

$$\frac{1}{2} = \frac{1}{2}$$