

3.4 ADDING, SUBTRACTING, MULTIPLYING AND DIVIDING FRACTIONS REVIEW

A. Add the following fractions.

1. $\frac{3}{5} + \frac{4}{5}$

2. $\frac{3}{8} + \frac{4}{5}$

3. $\frac{2}{3} + \frac{7}{9}$

4. $\frac{5}{6} + \frac{11}{18}$

5. $\frac{8}{7} + \frac{4}{7}$

6. $\frac{4}{9} + \frac{2}{7} + \frac{2}{3}$

7. $\frac{14}{9} + \frac{8}{7}$

8. $2\frac{1}{3} + 5\frac{1}{4}$

9. $\frac{5}{7} + \frac{3}{7} + \frac{2}{7}$

10. $6\frac{1}{8} + 5\frac{5}{5}$

11. $2\frac{7}{8} + 6\frac{1}{8}$

12. $\frac{3}{8} + \frac{5}{9} + \frac{1}{3}$

B. Subtract the following fractions.

1. $\frac{6}{7} - \frac{4}{7}$

2. $\frac{3}{4} - \frac{1}{6}$

3. $\frac{8}{4} - \frac{7}{4}$

4. $\frac{9}{10} - \frac{4}{5}$

5. $\frac{9}{10} - \frac{2}{7}$

6. $\frac{11}{7} - \frac{5}{8}$

7. $\frac{23}{24} - \frac{3}{8}$

8. $\frac{16}{13} - \frac{0}{4}$

9. $5\frac{1}{4} - 5\frac{1}{8}$

10. $6\frac{2}{3} - 5\frac{3}{4}$

11. $2\frac{3}{4} - 1\frac{2}{9}$

12. $6 - 1\frac{4}{7}$

C. Find the product of the following fractions.

1. $\frac{5}{6} \times \frac{9}{10}$

2. $\frac{11}{15} \times \frac{25}{33}$

3. $1\frac{2}{3} \times \frac{4}{5}$

4. $2\frac{3}{5} \times 4$

5. $\frac{2}{7} \times 1\frac{1}{6}$

6. $2\frac{2}{3} \times 3\frac{3}{8}$

7. $2\frac{2}{3} \times 1\frac{1}{8}$

8. $\frac{5}{16} \times 1\frac{1}{2}$

9. $\frac{2}{5} \times \frac{3}{4} \times \frac{15}{16}$

10. $2\frac{2}{3} \times 3$

11. $5 \times \frac{3}{8}$

12. $\frac{5}{8} \times 6\frac{2}{5} \times \frac{1}{4}$

D. Find the quotient of the following fractions.

1. $\frac{1}{4} \div \frac{1}{8}$

2. $\frac{3}{15} \div \frac{9}{1}$

3. $\frac{9}{10} \div \frac{3}{4}$

4. $\frac{4}{5} \div \frac{8}{15}$

5. $9 \div \frac{2}{3}$

6. $\frac{4}{25} \div 16$

7. $\frac{7}{8} \div \frac{5}{6}$

8. $9\frac{1}{6} \div 11$

9. $3\frac{1}{2} \div 7$

10. $8\frac{1}{3} \div 7$

11. $6\frac{2}{5} \div 5\frac{3}{5}$

12. $12\frac{1}{5} \div 15$

E. Solve the following questions involving fractions.

1. The radio antenna of a truck measures $64\frac{5}{6}$ centimetres when fully extended and only $23\frac{2}{3}$ centimetres when pushed down. What is the measure of the extension?

2. How many patio blocks $20\frac{1}{2}$ cm long are required to go completely around a flower bed whose perimeter is 1025 cm?

3. A bungee cord will expand $3\frac{3}{4}$ times its original length. What is the extended length of a $16\frac{1}{2}$ metre bungee cord?

4. A glass is $\frac{1}{4}$ full of water. A second glass is $\frac{1}{8}$ full, a third glass is $\frac{1}{3}$ full and a fourth glass is $\frac{5}{12}$ full. If the water from all of these glasses was poured into one empty glass, would this glass be overflowing?

5. A jet takes $1\frac{5}{8}$ hours to fly from Toronto to Miami. A prop-driven airplane would take $1\frac{2}{3}$ hours longer. How long would it take a prop-driven plane to fly this distance?