Order of Operations with Fractions (A)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{1}{2}\right)^3 + \frac{2}{3}$

$\frac{1}{2} \times \frac{4}{9} + \frac{2}{5}$

$\frac{3}{4} \times \frac{1}{6} + \frac{5}{8}$

$\frac{1}{5} \div \left(\frac{1}{4}\right)^2$

$\frac{2}{3} + \frac{1}{8} \times \frac{1}{9}$

$\frac{3}{5} \times \left(\frac{1}{5} + \frac{4}{5}\right)$

$\frac{1}{8} \div \frac{1}{5} + \frac{1}{2}$

$\left(\frac{1}{2} + \frac{3}{5}\right) \div \frac{2}{9}$

$\frac{1}{6} - \frac{1}{9} \times \frac{5}{8}$

Order of Operations with Fractions (A)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\underline{\left(\frac{1}{2}\right)^3} + \frac{2}{3}$

$= \underline{\frac{1}{8} + \frac{2}{3}}$

$= \frac{19}{24}$

$\underline{\frac{1}{2} \times \frac{4}{9}} + \frac{2}{5}$

$= \underline{\frac{2}{9} + \frac{2}{5}}$

$= \frac{28}{45}$

$\underline{\frac{3}{4} \times \frac{1}{6}} + \frac{5}{8}$

$= \underline{\frac{1}{8} + \frac{5}{8}}$

$= \frac{3}{4}$

$\frac{1}{5} \div \underline{\left(\frac{1}{4}\right)^2}$

$= \underline{\frac{1}{5} \div \frac{1}{16}}$

$= \frac{16}{5}$

$= 3\frac{1}{5}$

$\frac{2}{3} + \underline{\frac{1}{8} \times \frac{1}{9}}$

$= \underline{\frac{2}{3} + \frac{1}{72}}$

$= \frac{49}{72}$

$\frac{3}{5} \times \underline{\left(\frac{1}{5} + \frac{4}{5}\right)}$

$= \underline{\frac{3}{5} \times 1}$

$= \frac{3}{5}$

$\underline{\frac{1}{8} \div \frac{1}{5}} + \frac{1}{2}$

$= \underline{\frac{5}{8} + \frac{1}{2}}$

$= \frac{9}{8}$

$= 1\frac{1}{8}$

$\underline{\left(\frac{1}{2} + \frac{3}{5}\right)} \div \frac{2}{9}$

$= \underline{\frac{11}{10} \div \frac{2}{9}}$

$= \frac{99}{20}$

$= 4\frac{19}{20}$

$\frac{1}{6} - \underline{\frac{1}{9} \times \frac{5}{8}}$

$= \underline{\frac{1}{6} - \frac{5}{72}}$

$= \frac{7}{72}$

Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{1}{6} + \frac{3}{8} \times \frac{7}{9}$

$\frac{8}{9} \times \left(\frac{1}{3} + \frac{5}{9}\right)$

$\frac{8}{9} \div \frac{4}{9} + \frac{3}{8}$

$\frac{1}{4} + \frac{3}{8} \times \frac{1}{3}$

$\frac{5}{6} \div \frac{3}{4} - \frac{1}{5}$

$\left(\frac{2}{9} + \frac{8}{9}\right) \times \frac{1}{6}$

$\frac{3}{8} + \frac{1}{2} \times \frac{1}{8}$

$\left(\frac{1}{2} + \frac{2}{5}\right) \times \frac{7}{8}$

$\frac{2}{3} \div \frac{8}{9} + \frac{5}{9}$

Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{1}{6} + \frac{3}{8} \times \frac{7}{9}$

$= \frac{1}{6} + \frac{7}{24}$

$= \frac{11}{24}$

$\frac{8}{9} \times \left(\frac{1}{3} + \frac{5}{9}\right)$

$= \frac{8}{9} \times \frac{8}{9}$

$= \frac{64}{81}$

$\frac{8}{9} \div \frac{4}{9} + \frac{3}{8}$

$= 2 + \frac{3}{8}$

$= \frac{19}{8}$

$= 2\frac{3}{8}$

$\frac{1}{4} + \frac{3}{8} \times \frac{1}{3}$

$= \frac{1}{4} + \frac{1}{8}$

$= \frac{3}{8}$

$\frac{5}{6} \div \frac{3}{4} - \frac{1}{5}$

$= \frac{10}{9} - \frac{1}{5}$

$= \frac{41}{45}$

$\left(\frac{2}{9} + \frac{8}{9}\right) \times \frac{1}{6}$

$= \frac{10}{9} \times \frac{1}{6}$

$= \frac{5}{27}$

$\frac{3}{8} + \frac{1}{2} \times \frac{1}{8}$

$= \frac{3}{8} + \frac{1}{16}$

$= \frac{7}{16}$

$\left(\frac{1}{2} + \frac{2}{5}\right) \times \frac{7}{8}$

$= \frac{9}{10} \times \frac{7}{8}$

$= \frac{63}{80}$

$\frac{2}{3} \div \frac{8}{9} + \frac{5}{9}$

$= \frac{3}{4} + \frac{5}{9}$

$= \frac{47}{36}$

$= 1\frac{11}{36}$

Order of Operations with Fractions (C)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{2}{9} + \left(\frac{1}{6}\right)^2$

$\left(\frac{1}{4} + \frac{1}{6}\right) \div \frac{5}{9}$

$\frac{7}{8} - \left(\frac{5}{6}\right)^2$

$\frac{5}{6} \times \left(\frac{1}{5}\right)^2$

$\frac{8}{9} - \frac{7}{9} \times \frac{5}{8}$

$\left(\frac{1}{2}\right)^2 \div \frac{8}{9}$

$\frac{3}{8} \div \left(\frac{5}{8} - \frac{3}{5}\right)$

$\frac{3}{4} - \frac{1}{8} \div \frac{7}{9}$

$\left(\frac{5}{9} + \frac{1}{8}\right) \div \frac{5}{8}$

Order of Operations with Fractions (C)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{2}{9} + \left(\frac{1}{6}\right)^2$

$= \frac{2}{9} + \frac{1}{36}$

$= \frac{1}{4}$

$\left(\frac{1}{4} + \frac{1}{6}\right) \div \frac{5}{9}$

$= \frac{5}{12} \div \frac{5}{9}$

$= \frac{3}{4}$

$\frac{7}{8} - \left(\frac{5}{6}\right)^2$

$= \frac{7}{8} - \frac{25}{36}$

$= \frac{13}{72}$

$\frac{5}{6} \times \left(\frac{1}{5}\right)^2$

$= \frac{5}{6} \times \frac{1}{25}$

$= \frac{1}{30}$

$\frac{8}{9} - \frac{7}{9} \times \frac{5}{8}$

$= \frac{8}{9} - \frac{35}{72}$

$= \frac{29}{72}$

$\left(\frac{1}{2}\right)^2 \div \frac{8}{9}$

$= \frac{1}{4} \div \frac{8}{9}$

$= \frac{9}{32}$

$\frac{3}{8} \div \left(\frac{5}{8} - \frac{3}{5}\right)$

$= \frac{3}{8} \div \frac{1}{40}$

$= 15$

$\frac{3}{4} - \frac{1}{8} \div \frac{7}{9}$

$= \frac{3}{4} - \frac{9}{56}$

$= \frac{33}{56}$

$\left(\frac{5}{9} + \frac{1}{8}\right) \div \frac{5}{8}$

$= \frac{49}{72} \div \frac{5}{8}$

$= \frac{49}{45}$

$= 1\frac{4}{45}$

Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{3}{4}+\frac{2}{3}\right)\times\frac{5}{8}$

$\left(\frac{1}{4}\right)^2\times\frac{1}{5}$

$\frac{1}{8}+\left(\frac{5}{8}\right)^2$

$\frac{2}{3}+\frac{1}{4}\div\frac{1}{2}$

$\frac{1}{2}\times\left(\frac{1}{5}\right)^2$

$\frac{5}{6}\times\left(\frac{1}{6}+\frac{3}{4}\right)$

$\frac{3}{4}\times\left(\frac{8}{9}\right)^2$

$\left(\frac{2}{5}+\frac{1}{4}\right)\div\frac{1}{2}$

$\frac{2}{3}\times\frac{7}{9}+\frac{5}{6}$

Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{3}{4}+\frac{2}{3}\right)\times\frac{5}{8}$

$=\frac{17}{12}\times\frac{5}{8}$

$=\frac{85}{96}$

$\left(\frac{1}{4}\right)^2\times\frac{1}{5}$

$=\frac{1}{16}\times\frac{1}{5}$

$=\frac{1}{80}$

$\frac{1}{8}+\left(\frac{5}{8}\right)^2$

$=\frac{1}{8}+\frac{25}{64}$

$=\frac{33}{64}$

$\frac{2}{3}+\frac{1}{4}\div\frac{1}{2}$

$=\frac{2}{3}+\frac{1}{2}$

$=\frac{7}{6}$

$=1\frac{1}{6}$

$\frac{1}{2}\times\left(\frac{1}{5}\right)^2$

$=\frac{1}{2}\times\frac{1}{25}$

$=\frac{1}{50}$

$\frac{5}{6}\times\left(\frac{1}{6}+\frac{3}{4}\right)$

$=\frac{5}{6}\times\frac{11}{12}$

$=\frac{55}{72}$

$\frac{3}{4}\times\left(\frac{8}{9}\right)^2$

$=\frac{3}{4}\times\frac{64}{81}$

$=\frac{16}{27}$

$\left(\frac{2}{5}+\frac{1}{4}\right)\div\frac{1}{2}$

$=\frac{13}{20}\div\frac{1}{2}$

$=\frac{13}{10}$

$=1\frac{3}{10}$

$\frac{2}{3}\times\frac{7}{9}+\frac{5}{6}$

$=\frac{14}{27}+\frac{5}{6}$

$=\frac{73}{54}$

$=1\frac{19}{54}$

Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{1}{3} \div \left(\frac{3}{8} + \frac{5}{9}\right)$

$\left(\frac{7}{9} - \frac{1}{3}\right) \div \frac{1}{9}$

$\left(\frac{3}{4}\right)^2 - \frac{2}{5}$

$\frac{2}{3} \times \left(\frac{7}{9} + \frac{1}{9}\right)$

$\frac{7}{9} \div \left(\frac{2}{9}\right)^2$

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

$\frac{7}{9} \div \left(\frac{3}{5} - \frac{1}{4}\right)$

$\frac{2}{3} \times \frac{5}{8} - \frac{1}{6}$

$\frac{2}{5} \div \frac{1}{2} + \frac{1}{5}$

Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{1}{3} \div \left(\frac{3}{8} + \frac{5}{9}\right)$

$= \frac{1}{3} \div \frac{67}{72}$

$= \frac{24}{67}$

$\left(\frac{7}{9} - \frac{1}{3}\right) \div \frac{1}{9}$

$= \frac{4}{9} \div \frac{1}{9}$

$= 4$

$\left(\frac{3}{4}\right)^2 - \frac{2}{5}$

$= \frac{9}{16} - \frac{2}{5}$

$= \frac{13}{80}$

$\frac{2}{3} \times \left(\frac{7}{9} + \frac{1}{9}\right)$

$= \frac{2}{3} \times \frac{8}{9}$

$= \frac{16}{27}$

$\frac{7}{9} \div \left(\frac{2}{9}\right)^2$

$= \frac{7}{9} \div \frac{4}{81}$

$= \frac{63}{4}$

$= 15\frac{3}{4}$

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

$= \frac{1}{3} - \frac{1}{10}$

$= \frac{7}{30}$

$\frac{7}{9} \div \left(\frac{3}{5} - \frac{1}{4}\right)$

$= \frac{7}{9} \div \frac{7}{20}$

$= \frac{20}{9}$

$= 2\frac{2}{9}$

$\frac{2}{3} \times \frac{5}{8} - \frac{1}{6}$

$= \frac{5}{12} - \frac{1}{6}$

$= \frac{1}{4}$

$\frac{2}{5} \div \frac{1}{2} + \frac{1}{5}$

$= \frac{4}{5} + \frac{1}{5}$

$= 1$

Order of Operations with Fractions (F)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{1}{3} \div \left(\frac{2}{3} - \frac{1}{8}\right)$

$\left(\frac{2}{5} + \frac{2}{9}\right) \div \frac{7}{9}$

$\frac{5}{6} \times \left(\frac{8}{9} - \frac{7}{9}\right)$

$\left(\frac{8}{9} - \frac{1}{9}\right) \times \frac{1}{2}$

$\frac{7}{9} \times \left(\frac{3}{4}\right)^2$

$\frac{3}{4} - \frac{1}{4} \times \frac{2}{9}$

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

$\frac{4}{5} \div \left(\frac{2}{5}\right)^2$

$\left(\frac{3}{8} + \frac{2}{5}\right) \times \frac{8}{9}$

Order of Operations with Fractions (F)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{1}{3} \div \left(\frac{2}{3} - \frac{1}{8}\right)$

$= \frac{1}{3} \div \frac{13}{24}$

$= \frac{8}{13}$

$\left(\frac{2}{5} + \frac{2}{9}\right) \div \frac{7}{9}$

$= \frac{28}{45} \div \frac{7}{9}$

$= \frac{4}{5}$

$\frac{5}{6} \times \left(\frac{8}{9} - \frac{7}{9}\right)$

$= \frac{5}{6} \times \frac{1}{9}$

$= \frac{5}{54}$

$\left(\frac{8}{9} - \frac{1}{9}\right) \times \frac{1}{2}$

$= \frac{7}{9} \times \frac{1}{2}$

$= \frac{7}{18}$

$\frac{7}{9} \times \left(\frac{3}{4}\right)^2$

$= \frac{7}{9} \times \frac{9}{16}$

$= \frac{7}{16}$

$\frac{3}{4} - \frac{1}{4} \times \frac{2}{9}$

$= \frac{3}{4} - \frac{1}{18}$

$= \frac{25}{36}$

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

$= \frac{32}{15} + \frac{2}{5}$

$= \frac{38}{15}$

$= 2\frac{8}{15}$

$\frac{4}{5} \div \left(\frac{2}{5}\right)^2$

$= \frac{4}{5} \div \frac{4}{25}$

$= 5$

$\left(\frac{3}{8} + \frac{2}{5}\right) \times \frac{8}{9}$

$= \frac{31}{40} \times \frac{8}{9}$

$= \frac{31}{45}$

Order of Operations with Fractions (G)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{2}{3}\right)^2 + \frac{4}{9}$

$\left(\frac{3}{8}\right)^2 \div \frac{1}{8}$

$\frac{1}{4} + \frac{7}{9} \div \frac{1}{6}$

$\left(\frac{1}{2} + \frac{1}{8}\right) \div \frac{7}{9}$

$\frac{1}{5} \div \left(\frac{3}{8}\right)^2$

$\frac{3}{8} \div \left(\frac{3}{4} - \frac{1}{2}\right)$

$\frac{4}{5} \div \frac{2}{5} + \frac{1}{8}$

$\frac{8}{9} + \frac{5}{9} \div \frac{1}{3}$

$\left(\frac{1}{3} - \frac{1}{8}\right) \times \frac{2}{3}$

Order of Operations with Fractions (G)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{2}{3}\right)^2 + \frac{4}{9}$

$= \frac{4}{9} + \frac{4}{9}$

$= \frac{8}{9}$

$\left(\frac{3}{8}\right)^2 \div \frac{1}{8}$

$= \frac{9}{64} \div \frac{1}{8}$

$= \frac{9}{8}$

$= 1\frac{1}{8}$

$\frac{1}{4} + \frac{7}{9} \div \frac{1}{6}$

$= \frac{1}{4} + \frac{14}{3}$

$= \frac{59}{12}$

$= 4\frac{11}{12}$

$\left(\frac{1}{2} + \frac{1}{8}\right) \div \frac{7}{9}$

$= \frac{5}{8} \div \frac{7}{9}$

$= \frac{45}{56}$

$\frac{1}{5} \div \left(\frac{3}{8}\right)^2$

$= \frac{1}{5} \div \frac{9}{64}$

$= \frac{64}{45}$

$= 1\frac{19}{45}$

$\frac{3}{8} \div \left(\frac{3}{4} - \frac{1}{2}\right)$

$= \frac{3}{8} \div \frac{1}{4}$

$= \frac{3}{2}$

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

$\frac{4}{5} \div \frac{2}{5} + \frac{1}{8}$

$= 2 + \frac{1}{8}$

$= \frac{17}{8}$

$= 2\frac{1}{8}$

$\frac{8}{9} + \frac{5}{9} \div \frac{1}{3}$

$= \frac{8}{9} + \frac{5}{3}$

$= \frac{23}{9}$

$= 2\frac{5}{9}$

$\left(\frac{1}{3} - \frac{1}{8}\right) \times \frac{2}{3}$

$= \frac{5}{24} \times \frac{2}{3}$

$= \frac{5}{36}$

Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{2}{5} \div \left(\frac{4}{5}\right)^2$

$\frac{2}{3} \div \frac{1}{5} - \frac{2}{5}$

$\left(\frac{5}{6} + \frac{2}{9}\right) \times \frac{1}{3}$

$\left(\frac{2}{9}\right)^2 \times \frac{3}{4}$

$\frac{3}{4} \div \left(\frac{7}{8} - \frac{4}{5}\right)$

$\left(\frac{7}{9} + \frac{3}{8}\right) \div \frac{7}{8}$

$\left(\frac{7}{9} + \frac{1}{3}\right) \times \frac{3}{4}$

$\left(\frac{3}{4} + \frac{1}{2}\right) \div \frac{1}{4}$

$\frac{1}{3} + \frac{7}{9} \times \frac{4}{5}$

Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\frac{2}{5} \div \left(\frac{4}{5}\right)^2$

$= \frac{2}{5} \div \frac{16}{25}$

$= \frac{5}{8}$

$\frac{2}{3} \div \frac{1}{5} - \frac{2}{5}$

$= \frac{10}{3} - \frac{2}{5}$

$= \frac{44}{15}$

$= 2\frac{14}{15}$

$\left(\frac{5}{6} + \frac{2}{9}\right) \times \frac{1}{3}$

$= \frac{19}{18} \times \frac{1}{3}$

$= \frac{19}{54}$

$\left(\frac{2}{9}\right)^2 \times \frac{3}{4}$

$= \frac{4}{81} \times \frac{3}{4}$

$= \frac{1}{27}$

$\frac{3}{4} \div \left(\frac{7}{8} - \frac{4}{5}\right)$

$= \frac{3}{4} \div \frac{3}{40}$

$= 10$

$\left(\frac{7}{9} + \frac{3}{8}\right) \div \frac{7}{8}$

$= \frac{83}{72} \div \frac{7}{8}$

$= \frac{83}{63}$

$= 1\frac{20}{63}$

$\left(\frac{7}{9} + \frac{1}{3}\right) \times \frac{3}{4}$

$= \frac{10}{9} \times \frac{3}{4}$

$= \frac{5}{6}$

$\left(\frac{3}{4} + \frac{1}{2}\right) \div \frac{1}{4}$

$= \frac{5}{4} \div \frac{1}{4}$

$= 5$

$\frac{1}{3} + \frac{7}{9} \times \frac{4}{5}$

$= \frac{1}{3} + \frac{28}{45}$

$= \frac{43}{45}$

Order of Operations with Fractions (I)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{1}{5}+\frac{8}{9}\right)\times\frac{5}{8}$

$\left(\frac{3}{4}+\frac{4}{5}\right)\div\frac{1}{5}$

$\frac{1}{3}\div\frac{5}{8}+\frac{1}{5}$

$\left(\frac{3}{4}\right)^{3}\times\frac{2}{3}$

$\frac{1}{2}\times\frac{2}{3}+\frac{5}{8}$

$\frac{2}{3}+\left(\frac{5}{6}\right)^{2}$

$\frac{5}{8}\div\left(\frac{1}{4}-\frac{1}{6}\right)$

$\frac{3}{4}\div\frac{1}{3}+\frac{2}{5}$

$\frac{1}{9}\div\frac{2}{9}+\frac{1}{6}$

Order of Operations with Fractions (I)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{1}{5}+\frac{8}{9}\right)\times\frac{5}{8}$

$=\frac{49}{45}\times\frac{5}{8}$

$=\frac{49}{72}$

$\left(\frac{3}{4}+\frac{4}{5}\right)\div\frac{1}{5}$

$=\frac{31}{20}\div\frac{1}{5}$

$=\frac{31}{4}$

$=7\frac{3}{4}$

$\frac{1}{3}\div\frac{5}{8}+\frac{1}{5}$

$=\frac{8}{15}+\frac{1}{5}$

$=\frac{11}{15}$

$\left(\frac{3}{4}\right)^3\times\frac{2}{3}$

$=\frac{27}{64}\times\frac{2}{3}$

$=\frac{9}{32}$

$\frac{1}{2}\times\frac{2}{3}+\frac{5}{8}$

$=\frac{1}{3}+\frac{5}{8}$

$=\frac{23}{24}$

$\frac{2}{3}+\left(\frac{5}{6}\right)^2$

$=\frac{2}{3}+\frac{25}{36}$

$=\frac{49}{36}$

$=1\frac{13}{36}$

$\frac{5}{8}\div\left(\frac{1}{4}-\frac{1}{6}\right)$

$=\frac{5}{8}\div\frac{1}{12}$

$=\frac{15}{2}$

$=7\frac{1}{2}$

$\frac{3}{4}\div\frac{1}{3}+\frac{2}{5}$

$=\frac{9}{4}+\frac{2}{5}$

$=\frac{53}{20}$

$=2\frac{13}{20}$

$\frac{1}{9}\div\frac{2}{9}+\frac{1}{6}$

$=\frac{1}{2}+\frac{1}{6}$

$=\frac{2}{3}$

Order of Operations with Fractions (J)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{7}{9}+\frac{3}{5}\right)\div\frac{2}{3}$

$\frac{3}{4}\div\left(\frac{3}{8}-\frac{2}{9}\right)$

$\frac{5}{9}-\frac{1}{9}\div\frac{7}{9}$

$\frac{2}{3}\div\frac{4}{9}-\frac{1}{6}$

$\frac{4}{9}\div\left(\frac{3}{4}\right)^2$

$\frac{5}{8}\div\left(\frac{5}{9}+\frac{1}{9}\right)$

$\frac{3}{4}\div\left(\frac{1}{5}\right)^2$

$\frac{4}{9}\div\left(\frac{1}{2}+\frac{2}{3}\right)$

$\frac{1}{3}+\frac{2}{9}\div\frac{3}{5}$

Order of Operations with Fractions (J)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$\left(\frac{7}{9}+\frac{3}{5}\right)\div\frac{2}{3}$

$=\frac{62}{45}\div\frac{2}{3}$

$=\frac{31}{15}$

$=2\frac{1}{15}$

$\frac{3}{4}\div\left(\frac{3}{8}-\frac{2}{9}\right)$

$=\frac{3}{4}\div\frac{11}{72}$

$=\frac{54}{11}$

$=4\frac{10}{11}$

$\frac{5}{9}-\frac{1}{9}\div\frac{7}{9}$

$=\frac{5}{9}-\frac{1}{7}$

$=\frac{26}{63}$

$\frac{2}{3}\div\frac{4}{9}-\frac{1}{6}$

$=\frac{3}{2}-\frac{1}{6}$

$=\frac{4}{3}$

$=1\frac{1}{3}$

$\frac{4}{9}\div\left(\frac{3}{4}\right)^2$

$=\frac{4}{9}\div\frac{9}{16}$

$=\frac{64}{81}$

$\frac{5}{8}\div\left(\frac{5}{9}+\frac{1}{9}\right)$

$=\frac{5}{8}\div\frac{2}{3}$

$=\frac{15}{16}$

$\frac{3}{4}\div\left(\frac{1}{5}\right)^2$

$=\frac{3}{4}\div\frac{1}{25}$

$=\frac{75}{4}$

$=18\frac{3}{4}$

$\frac{4}{9}\div\left(\frac{1}{2}+\frac{2}{3}\right)$

$=\frac{4}{9}\div\frac{7}{6}$

$=\frac{8}{21}$

$\frac{1}{3}+\frac{2}{9}\div\frac{3}{5}$

$=\frac{1}{3}+\frac{10}{27}$

$=\frac{19}{27}$