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Fraction Quiz

1) $\frac{3}{5} + \frac{4}{8} =$

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

$\frac{9}{15} + \frac{20}{15} = \frac{9+20}{15}$

$= \frac{29}{15} = 1\frac{14}{15}$

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

$= \frac{2 \times 3}{3 \times 4} =$

$\frac{6}{12} = \frac{6 \div 6}{12 \div 6} =$

$\frac{1}{2} = 0.5$

3) $\frac{3}{4} - \frac{2}{3} =$

$= \frac{3 \times 3}{4 \times 3} - \frac{2 \times 4}{3 \times 4}$

$= \frac{9}{12} - \frac{8}{12} = \frac{9-8}{12}$

$= \frac{1}{12} = 0.083$

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

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

$= \frac{7}{5} = 1\frac{2}{5}$

5) $\frac{3}{4}\left(\frac{5}{1}\right) = \frac{3\times5}{4\times1} = \frac{15}{4} = 3\frac{3}{4}$

6) $\left(\frac{3}{4}\right)^2 = \left(\frac{3}{4}\right)\left(\frac{3}{4}\right) = \frac{3\times3}{4} = \frac{9}{4} = 2\frac{1}{4}$

7) $\frac{1}{4}\left(\frac{2}{3}\right)^2 = \frac{2\times2}{3} = \frac{4}{3} = 1\frac{1}{3} = \frac{1}{4}\left(1\frac{1}{3}\right) = \frac{1}{4}\times\frac{4}{3} = \frac{1\times4}{4\times3} = \frac{4}{12} = \frac{4\div4}{12\div4} = \frac{1}{3}$

8) $\frac{2}{7}\times\frac{3}{5} = \frac{2\times3}{7\times5} = \frac{6}{35} = 0.24$

9) $2\frac{3}{8}+3\frac{2}{5} = (2+3)+\frac{3}{8}+\frac{2}{5} = 5+\frac{3\times5}{8\times5}+\frac{2\times8}{5\times8} = 5+\frac{15}{40}+\frac{16}{40} = 5+\frac{15+16}{40} = 5+\frac{31}{40} = 5\frac{31}{40}$

4) $1\frac{3}{5}\times2\frac{1}{8} = \frac{8}{5}\times\frac{21}{8} = \frac{8\times21}{5\times8} = \frac{168}{40} = \frac{168\div8}{40\div8} = \frac{21}{5} = 4\frac{1}{5}$

(12) $1\frac{3}{5}+2\frac{1}{8}$

$=(1+2)+\left(\frac{3}{5}+\frac{1}{8}\right)$

$=3+\frac{3\times8}{5\times8}+\frac{1\times5}{8\times5}$

$=3+\frac{24}{40}+\frac{5}{40}$

$=3+\frac{24+5}{40}$

$=3+\frac{29}{40}=$ $3\frac{29}{40}$

(13) $\frac{7}{3}-\frac{3}{8}=$

$=\frac{7\times8}{3\times8}-\frac{3\times3}{8\times3}$

$=\frac{56}{24}-\frac{9}{24}$

$=\frac{56-9}{24}$

$=\frac{47}{24}=1\frac{23}{24}$

(14) $2\frac{5}{8}-4\frac{3}{8}$

$=(2-4)-\left(\frac{5}{8}-\frac{3}{8}\right)$

$=-2+\frac{5-3}{8}$

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

$=-2+\frac{1}{4}=$ $-1\frac{3}{4}$

(15) $4\frac{5}{8}+2\frac{3}{8}=$

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

$=6+\frac{5+3}{8}$

$=6+\frac{8}{8}=6+1=$ 7

(16) $5\frac{3}{8}-3\frac{5}{8}$

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

$=2+\left(\frac{3-5}{8}\right)=2+\frac{-2}{8}=2+\frac{-2\div2}{8\div2}=2+\frac{-1}{4}=$ $1\frac{3}{4}$

(17) $5\frac{3}{4} + 7\frac{5}{6}$

$= (5+7) + \left(\frac{3}{4} + \frac{5}{6}\right)$

$= 12 + \frac{3\times3}{4\times3} + \frac{5\times2}{6\times2}$

$= 12 + \frac{9+10}{12}$

$= 12 + \frac{19}{12} = 12 + 1\frac{7}{12} = 13\frac{7}{12}$

(18) $7\frac{1}{6} - 5\frac{3}{4} =$

$= (7-5) + \left(\frac{1}{6} - \frac{3}{4}\right)$

$= 2 + \frac{1\times2}{6\times2} - \frac{3\times3}{4\times3}$

$= 2\frac{2}{12} - \frac{9}{12}$

$= 2 + \frac{2-9}{12} = 2 + \frac{-7}{12} = 1\frac{5}{12}$

(19) $\frac{1}{2} - \frac{5}{8} =$

$= \frac{1\times4}{2\times4} + \frac{5}{8}$

$= \frac{4}{8} + \frac{5}{8} = \frac{9}{8} = 1\frac{1}{8}$

20. $\frac{11}{18} + \frac{17}{20} =$

$= \frac{11 \times 10}{18 \times 10} + \frac{17 \times 9}{20 \times 9}$

$= \frac{110}{180} + \frac{153}{180}$

$= \frac{110 + 153}{180} = \frac{263}{180} = 1\frac{83}{180}$

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21. $\frac{43}{140} - \frac{4}{42}$

$= \frac{43 \times 3}{140 \times 3} - \frac{6 \times 10}{42 \times 10}$

$= \frac{129 - 60}{420}$

$= \frac{69}{420}$

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22. $57\frac{3}{8} - 43\frac{1}{3} =$

$= (57 - 43) + \left(\frac{3}{8} - \frac{1}{3}\right)$

$= 14 + \frac{3 \times 3}{8 \times 3} - \frac{1 \times 8}{3 \times 8} =$

$= 14 + \frac{9 - 8}{24} = 14 + \frac{1}{24} =$

$14\frac{1}{24}$