Corrigé FS-14

http://hep-vd.educanet2.ch/p41349/idm

Exercice 1 - *Compare les nombres suivants (< ; > ou =) :*

$\frac{3}{4}=\frac{12}{16}$ = $\frac{66}{88}=\frac{3}{4}$

$\frac{36}{99}=\frac{4}{11}$ < $\frac{4}{9}=\frac{44}{99}$

$\frac{32}{44}=\frac{8}{11}$ < $\frac{6}{8}=\frac{3}{4}=\frac{33}{44}$

$\frac{8}{10}=0,8$ = $\frac{4}{5}=\frac{8}{10}$

$\frac{35}{50}=\frac{7}{10}$ > $\frac{17}{25}=\frac{34}{50}$

$\frac{4}{15}$ < $\frac{2}{7}=\frac{4}{14}$

Exercice 2 - *Calcule et donne le résultat sous forme de fraction irréductible :*

1. $\frac{9}{6}+\frac{8}{9}=\frac{27}{18}+\frac{16}{18}=\frac{27+16}{18}=\frac{43}{18}$
2. $\frac{2}{6}+\frac{9}{3}=\frac{4+36}{12}=\frac{40}{12}=\frac{10}{3}$
3. $\frac{6}{9}+\frac{4}{7}=\frac{42+36}{63}=\frac{78}{63}=\frac{26}{21}$
4. $\frac{2}{5}+\frac{7}{4}=\frac{8+35}{20}=\frac{43}{20}$
5. $\frac{7}{8}+\frac{6}{10}=\frac{7}{8}+\frac{3}{5}=\frac{35+24}{40}=\frac{59}{40}$
6. $\frac{2}{8}+\frac{8}{6}=\frac{1}{4}+\frac{4}{3}=\frac{3+16}{12}=\frac{19}{12}$
7. $\frac{5}{8}+\frac{5}{6}=\frac{15+20}{24}=\frac{35}{24}$
8. $\frac{6}{3}+\frac{5}{4}=2+\frac{5}{4}=\frac{8+5}{4}=\frac{13}{4}$
9. $\frac{5}{4}+\frac{4}{3}=\frac{15+16}{12}=\frac{31}{12}$
0. $\frac{5}{6}+\frac{6}{4}=\frac{10+18}{12}=\frac{28}{12}=\frac{7}{3}$

Exercice 3 - *Simplifie jusqu'à rendre irréductible :*

1. $\frac{130}{170}=\frac{13}{17}$
2. $\frac{63}{105}=\frac{21}{35}=\frac{3}{5}$
3. $\frac{50}{25}=\frac{10}{5}=\frac{2}{1}=2$
4. $\frac{30}{36}=\frac{5}{6}$
5. $\frac{40}{65}=\frac{8}{13}$
6. $\frac{35}{63}=\frac{5}{9}$
7. $\frac{210}{350}=\frac{21}{35}=\frac{3}{5}$
8. $\frac{51}{33}=\frac{17}{11}$
9. $\frac{64}{136}=\frac{32}{68}=\frac{16}{34}=\frac{8}{17}$
10. $\frac{36}{72}=\frac{4}{8}=\frac{1}{2}$

Exercice 4 - *Calcule et donne le résultat sous forme de fraction irréductible :*

1. $\frac{17}{3} - \frac{4}{15} = \frac{85-4}{15} = \frac{81}{15} = \frac{27}{5}$
2. $\frac{12}{3} - \frac{8}{14} = \frac{4}{1} - \frac{4}{7} = \frac{28-4}{7} = \frac{24}{7}$
3. $\frac{6}{10} - \frac{3}{12} = \frac{36-15}{60} = \frac{21}{60} = \frac{7}{20}$
4. $\frac{9}{3} - \frac{7}{10} = \frac{3}{1} - \frac{7}{10} = \frac{30-7}{10} = \frac{23}{10}$
5. $\frac{9}{5} - \frac{4}{11} = \frac{99-20}{55} = \frac{79}{55}$
6. $\frac{18}{2} - \frac{19}{11} = \frac{9}{1} - \frac{19}{11} = \frac{99-19}{11} = \frac{80}{11}$
7. $\frac{11}{18} - \frac{2}{8} = \frac{11}{18} - \frac{1}{4} = \frac{22-9}{36} = \frac{13}{36}$
8. $\frac{9}{7} - \frac{5}{20} = \frac{180-35}{140} = \frac{135}{140} = \frac{29}{28}$
9. $\frac{9}{19} - \frac{2}{7} = \frac{63-38}{133} = \frac{25}{133}$
10. $\frac{17}{19} - \frac{8}{13} = \frac{221-152}{247} = \frac{69}{247}$

Exercice 5 - *Complète pour que les égalités soient vraies :*

A)	B)	C)
$\frac{1}{4} = \frac{7}{28}$	$\frac{3}{7} = \frac{18}{42}$	$\frac{16}{9} = \frac{112}{63}$
$\frac{13}{5} = \frac{39}{15}$	$\frac{1}{3} = \frac{7}{21}$	$\frac{13}{5} = \frac{65}{25}$
$\frac{9}{3} = \frac{45}{15}$	$\frac{10}{7} = \frac{30}{21}$	$\frac{15}{8} = \frac{30}{16}$
$\frac{3}{5} = \frac{21}{35}$	$\frac{20}{11} = \frac{80}{44}$	$\frac{9}{4} = \frac{54}{24}$
$\frac{7}{5} = \frac{56}{40}$	$\frac{19}{10} = \frac{247}{130}$	$\frac{9}{19} = \frac{18}{38}$
$\frac{11}{19} = \frac{121}{209}$	$\frac{3}{17} = \frac{33}{187}$	$\frac{9}{23} = \frac{63}{161}$