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(1) 將  $\frac{4}{3}$  化成分母為 24 的分數

$$\frac{4}{3} = \frac{4 \times 8}{3 \times 8} = \frac{32}{24}$$

(2) 將  $\frac{35}{42}$  化成分子為 15 的分數

$$\frac{35}{42} = \frac{5}{6} = \frac{15}{18}$$

$$(3) \frac{18}{24} = \frac{6}{8} = \frac{(2)}{16} = \frac{3}{(4)} = \frac{(24)}{32} = \frac{9}{(12)} = \frac{-12}{(-16)} = \frac{(-3)}{-4}$$

$$(4) -7 = \frac{-7}{(1)} = \frac{(-14)}{2} = \frac{21}{(-3)}$$

將下列各數化為最簡分數:

$$(5) \frac{30}{48} = \frac{5}{8} \quad (6) -\frac{135}{165} = -\frac{9}{11} \quad (7) -\frac{54}{81} = -\frac{2}{3}$$

$$(30, 48) = 6 \quad (135, 165) = 15 \quad (54, 81) = 27$$

比較下列各組分數的大小

$$(8) \frac{1}{3}, \frac{1}{4}$$

$$\Rightarrow \frac{1}{3} > \frac{1}{4}$$

$$(9) \frac{9}{11}, \frac{6}{11}$$

$$\Rightarrow \frac{9}{11} > \frac{6}{11}$$

$$(10) \frac{7}{15}, \frac{11}{18}$$

$$\frac{7}{15} = \frac{42}{90}$$

$$\frac{11}{18} = \frac{55}{90}$$

$$\therefore \frac{55}{90} > \frac{42}{90} \quad \therefore \frac{11}{18} > \frac{7}{15}$$

$$(11) \frac{13}{10}, \frac{14}{11}, \frac{17}{14}$$

$$\frac{13}{10} = 1 + \frac{3}{10}$$

$$\frac{14}{11} = 1 + \frac{3}{11}$$

$$\frac{17}{14} = 1 + \frac{3}{14}$$

$$\therefore \frac{3}{10} > \frac{3}{11} > \frac{3}{14}$$

$$\therefore \frac{13}{10} > \frac{14}{11} > \frac{17}{14}$$

$$(12) \frac{101}{103}, \frac{103}{105}, \frac{105}{107}$$

$$\frac{101}{103} = 1 - \frac{2}{103} \quad \therefore \frac{2}{103} > \frac{2}{105} > \frac{2}{107} \quad \therefore \frac{2}{5} > \frac{2}{7}$$

$$\frac{103}{105} = 1 - \frac{2}{105} \quad \therefore \frac{101}{103} < \frac{103}{105} < \frac{105}{107} \quad \therefore -\frac{2}{5} < -\frac{2}{7}$$

$$\frac{105}{107} = 1 - \frac{2}{107}$$

$$(14) -\frac{12}{23}, -\frac{4}{23}$$

$$\therefore \frac{12}{23} > \frac{4}{23}$$

$$\therefore -\frac{12}{23} < -\frac{4}{23}$$

$$(15) -\frac{4}{5}, -\frac{3}{4}, -\frac{1}{2}$$

$$\therefore \frac{4}{5} > \frac{3}{4} > \frac{1}{2}$$

$$\therefore -\frac{4}{5} < -\frac{3}{4} < -\frac{1}{2}$$

$$(16) -1\frac{3}{4}, -2\frac{1}{4}$$

$$\therefore 2\frac{1}{4} > 1\frac{3}{4}$$

$$\therefore -2\frac{1}{4} < -1\frac{3}{4}$$

$$(17) -5\frac{7}{8}, -5\frac{5}{6}$$

$$\therefore 5\frac{7}{8} > 5\frac{5}{6}$$

$$\therefore -5\frac{7}{8} < -5\frac{5}{6}$$

將(18)~(19)題各數化成小數:

$$(18) -2\frac{5}{8}$$

$$= -2.625$$

$$(19) -\frac{15}{16}$$

$$= -0.9375$$

求下列各式的值

$$(20) \frac{72}{17} - \frac{6}{17}$$

$$= \frac{(72)-6}{17}$$

$$= -\frac{8}{17}$$

$$(21) \frac{7}{14} - \frac{11}{14}$$

$$= \frac{7-11}{14}$$

$$= -\frac{4}{14} = -\frac{2}{7}$$

$$(22) \frac{3}{5} + \frac{4}{5} - \frac{12}{5}$$

$$= \frac{3+4-12}{5}$$

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

$$(23) (-\frac{4}{9}) + \frac{1}{9}$$

$$= \frac{(-4)+1}{9}$$

$$= \frac{-3}{9} = -\frac{1}{3}$$

$$(24) \frac{3}{16} - \frac{5}{16} - (-\frac{11}{16})$$

$$= \frac{3-5+11}{16}$$

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

$$(25) -\frac{4}{5} - (-\frac{3}{5}) - (+\frac{2}{5})$$

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

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

$$(26) -2\frac{1}{4} - 3\frac{2}{4}$$

$$= -\frac{9}{4} - \frac{14}{4}$$

$$= \frac{(-9)-14}{4}$$

$$= -\frac{23}{4}$$

$$(27) -2\frac{1}{4} + 3\frac{2}{4}$$

$$= -\frac{9}{4} + \frac{14}{4}$$

$$= \frac{(-9)+14}{4}$$

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

$$(28) \frac{5}{6} + \frac{3}{10}$$

$$= \frac{25}{30} + \frac{9}{30}$$

$$= \frac{34}{30} = \frac{17}{15}$$

$$(29) 3\frac{3}{4} - 2\frac{1}{2}$$

$$= \frac{15}{4} - \frac{5}{2}$$

$$= \frac{15}{4} - \frac{10}{4}$$

$$= \frac{15-10}{4} = \frac{5}{4}$$

$$(30) \frac{1}{2} - \frac{3}{4} + \frac{7}{8}$$

$$= \frac{4-6+7}{8}$$

$$= \frac{5}{8}$$

$$(31) (\frac{98}{99}) - (\frac{100}{99})$$

$$= \frac{(-98) - (-100)}{99}$$

$$= \frac{-98+100}{99} = \frac{2}{99}$$

$$(32) -(-\frac{3}{4}) - \frac{1}{2}$$

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

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

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

$$(33) (-\frac{1}{6}) - (-\frac{5}{9})$$

$$= (-\frac{3}{18}) + \frac{10}{18}$$

$$= \frac{(-3)+10}{18}$$

$$= \frac{7}{18}$$

$$(34) \frac{2}{3} + \frac{4}{5} - 1\frac{1}{6}$$

$$= \frac{2}{3} + \frac{4}{5} - \frac{7}{6}$$

$$= \frac{20+24-35}{30}$$

$$= \frac{9}{30} = \frac{3}{10}$$

$$(35) 2\frac{3}{5} - 3\frac{2}{4} + 2\frac{3}{4}$$

$$= \frac{13}{5} - \frac{14}{4} + \frac{11}{4}$$

$$= \frac{52-70+55}{20}$$

$$= \frac{37}{20}$$

$$(36) -(-\frac{7}{5}) - (-\frac{2}{3}) + \frac{5}{8} - \frac{1}{4}$$

$$= \frac{7}{5} + \frac{2}{3} + \frac{5}{8} - \frac{1}{4}$$

$$= \frac{168+80+75-30}{120}$$

$$= \frac{293}{120}$$

$$[5, 3, 8, 4] = 120$$

$$(37) (-2\frac{1}{3}) + 1\frac{3}{4} - (-1\frac{1}{2})$$

$$= (-\frac{7}{3}) + \frac{7}{4} + \frac{3}{2}$$

$$= \frac{(-28)+21+18}{12}$$

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

$$(38) \frac{1}{3} - \frac{1}{9} + \frac{1}{27} - \frac{1}{81} + 3$$

$$= \frac{27-9+3-1}{81} + 3$$

$$= \frac{20}{81} + 3$$

$$= 3\frac{20}{81}$$

$$(39) \frac{23}{55} + (-\frac{23}{55} + \frac{7}{3})$$

$$= \frac{23}{55} - \frac{23}{55} + \frac{7}{3}$$

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

$$(40) -(-\frac{4}{5} + \frac{6}{7})$$

$$= \frac{4}{5} - \frac{6}{7}$$

$$= \frac{28-30}{35}$$

$$= -\frac{2}{35}$$

$$(41) \frac{-9}{37} - (-\frac{9}{37} + \frac{8}{15})$$

$$= \frac{-9}{37} + \frac{9}{37} - \frac{8}{15}$$

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

$$(42) \frac{7}{25} + [(-\frac{5}{32}) + (-\frac{7}{25})]$$

$$= \frac{7}{25} - \frac{5}{32} - \frac{7}{25}$$

$$= -\frac{5}{32}$$

$$(43) -(\frac{1}{5} - 2\frac{1}{3}) + 2\frac{2}{3}$$

$$= -\frac{1}{5} + 2\frac{1}{3} + 2\frac{2}{3}$$

$$= (-\frac{1}{5}) + 5$$

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

$$(44) \frac{3}{2} - (\frac{5}{8} + \frac{3}{4})$$

$$= \frac{3}{2} - \frac{5}{8} - \frac{3}{4}$$

$$= \frac{12-5-6}{8}$$

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

$$(45) \frac{2}{3} - 41 + (1\frac{3}{4} - \frac{5}{2})$$

$$= \frac{2}{3} - 41 + \frac{7}{4} - \frac{5}{2}$$

$$= \frac{8+21-30}{12} + (-41)$$

$$= (-\frac{1}{12}) + (-41)$$

$$\text{或 } \frac{2}{3} - 41 + \frac{7}{4} - \frac{5}{2}$$

$$= \frac{8-492+21-30}{12}$$

$$= -\frac{493}{12}$$

$$= -41\frac{1}{12}$$

$$(46) [(-\frac{1}{3}) + (\frac{2}{5})] - [(-\frac{3}{4}) + \frac{1}{6}]$$

$$= \frac{-5+6}{15} - \frac{-9+2}{12}$$

$$= \frac{1}{15} - (-\frac{7}{12})$$

$$= \frac{4+35}{60}$$

$$= \frac{39}{60} = \frac{13}{20}$$

算得好累~  
加油加油

