

# Worksheet

04/29/2018

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Problem quickname: 6408

1)

Calculate the result.

Quick:  
6408

$$\begin{aligned} \text{a) } & \frac{5}{38} - \frac{2}{19} + \frac{6}{19} \mid \text{convert to like quantities (lcm): 38} \\ & = \frac{5}{38} - \frac{4}{38} + \frac{12}{38} \mid \text{add numerators} \\ & = \frac{13}{38} \end{aligned}$$

$$\begin{aligned} \text{b) } & \frac{5}{41} + \frac{9}{41} + \frac{23}{41} \mid \text{convert to like quantities (lcm): 41} \\ & = \frac{5}{41} + \frac{9}{41} + \frac{23}{41} \mid \text{add numerators} \\ & = \frac{37}{41} \end{aligned}$$

$$\begin{aligned} \text{c) } & \frac{7}{8} - \frac{3}{8} - \frac{17}{40} \mid \text{convert to like quantities (lcm): 40} \\ & = \frac{35}{40} - \frac{15}{40} - \frac{17}{40} \mid \text{add numerators} \\ & = \frac{3}{40} \end{aligned}$$

$$\begin{aligned} \text{d) } & \frac{15}{41} + \frac{5}{41} - \frac{16}{41} \mid \text{convert to like quantities (lcm): 41} \\ & = \frac{15}{41} + \frac{5}{41} - \frac{16}{41} \mid \text{add numerators} \\ & = \frac{4}{41} \end{aligned}$$

$$\begin{aligned} \text{e) } & \frac{5}{49} + \frac{34}{49} - \frac{10}{49} \mid \text{convert to like quantities (lcm): 49} \\ & = \frac{5}{49} + \frac{34}{49} - \frac{10}{49} \mid \text{add numerators} \\ & = \frac{29}{49} \end{aligned}$$

$$\begin{aligned} \text{f) } & \frac{20}{37} - \frac{9}{37} - \frac{8}{37} \mid \text{convert to like quantities (lcm): 37} \\ & = \frac{20}{37} - \frac{9}{37} - \frac{8}{37} \mid \text{add numerators} \\ & = \frac{3}{37} \end{aligned}$$

$$\begin{aligned}
 \text{g) } & \frac{29}{50} - \frac{3}{50} - \frac{13}{50} \mid \text{convert to like quantities (lcm): 50} \\
 & = \frac{29}{50} - \frac{3}{50} - \frac{13}{50} \mid \text{add numerators} \\
 & = \frac{13}{50}
 \end{aligned}$$

$$\begin{aligned}
 \text{h) } & \frac{19}{49} + \frac{11}{49} - \frac{4}{49} \mid \text{convert to like quantities (lcm): 49} \\
 & = \frac{19}{49} + \frac{11}{49} - \frac{4}{49} \mid \text{add numerators} \\
 & = \frac{26}{49}
 \end{aligned}$$

2)

Calculate the result.

Quick:  
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$$\begin{aligned}
 \text{a) } & 3\frac{8}{23} - \frac{13}{23} + \frac{20}{23} - \frac{13}{23} \mid \text{convert to like quantities (lcm): 23} \\
 & = \frac{77}{23} - \frac{13}{23} + \frac{20}{23} - \frac{13}{23} \mid \text{add numerators} \\
 & = \frac{71}{23} = 3\frac{2}{23}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } & \frac{47}{48} + 1\frac{29}{48} - \frac{7}{24} - \frac{17}{48} \mid \text{convert to like quantities (lcm): 48} \\
 & = \frac{47}{48} + \frac{77}{48} - \frac{14}{48} - \frac{17}{48} \mid \text{add numerators} \\
 & = \frac{93}{48} \mid \text{reduce} \\
 & = \frac{31}{16} = 1\frac{15}{16}
 \end{aligned}$$

$$\begin{aligned}
 \text{c) } & \frac{3}{4} - \frac{3}{16} - \frac{1}{24} - \frac{13}{48} \mid \text{convert to like quantities (lcm): 48} \\
 & = \frac{36}{48} - \frac{9}{48} - \frac{2}{48} - \frac{13}{48} \mid \text{add numerators} \\
 & = \frac{12}{48} \mid \text{reduce} \\
 & = \frac{1}{4}
 \end{aligned}$$

$$\begin{aligned}
 \text{d) } & \frac{20}{49} + \frac{13}{49} - \frac{13}{98} - \frac{3}{98} \mid \text{convert to like quantities (lcm): 98} \\
 & = \frac{40}{98} + \frac{26}{98} - \frac{13}{98} - \frac{3}{98} \mid \text{add numerators} \\
 & = \frac{50}{98} \mid \text{reduce} \\
 & = \frac{25}{49}
 \end{aligned}$$

3)

Calculate the result.

- a)  $\frac{6}{31} + \frac{2}{93}$  | convert to like quantities (lcm): 93  
 $= \frac{18}{93} + \frac{2}{93}$  | add numerators  
 $= \frac{20}{93}$
- b)  $\frac{98}{37} + \frac{39}{37}$  | convert to like quantities (lcm): 37  
 $= \frac{98}{37} + \frac{39}{37}$  | add numerators  
 $= \frac{137}{37} = 3\frac{26}{37}$
- c)  $\frac{37}{72} + \frac{5}{72}$  | convert to like quantities (lcm): 72  
 $= \frac{37}{72} + \frac{5}{72}$  | add numerators  
 $= \frac{42}{72}$  | reduce  
 $= \frac{7}{12}$
- d)  $\frac{70}{27} + \frac{97}{27}$  | convert to like quantities (lcm): 27  
 $= \frac{70}{27} + \frac{97}{27}$  | add numerators  
 $= \frac{167}{27} = 6\frac{5}{27}$
- e)  $\frac{41}{52} + \frac{99}{52}$  | convert to like quantities (lcm): 52  
 $= \frac{41}{52} + \frac{99}{52}$  | add numerators  
 $= \frac{140}{52}$  | reduce  
 $= \frac{35}{13} = 2\frac{9}{13}$
- f)  $\frac{3}{1} + \frac{77}{8}$  | convert to like quantities (lcm): 8  
 $= \frac{24}{8} + \frac{77}{8}$  | add numerators  
 $= \frac{101}{8} = 12\frac{5}{8}$
- g)  $\frac{27}{97} + \frac{27}{97}$  | convert to like quantities (lcm): 97  
 $= \frac{27}{97} + \frac{27}{97}$  | add numerators  
 $= \frac{54}{97}$

$$\begin{aligned}
 \text{h) } & \frac{21}{88} + \frac{41}{88} \mid \text{convert to like quantities (lcm): 88} \\
 & = \frac{21}{88} + \frac{41}{88} \mid \text{add numerators} \\
 & = \frac{62}{88} \mid \text{reduce} \\
 & = \frac{31}{44}
 \end{aligned}$$

$$\begin{aligned}
 \text{i) } & \frac{14}{9} + \frac{28}{3} \mid \text{convert to like quantities (lcm): 9} \\
 & = \frac{14}{9} + \frac{84}{9} \mid \text{add numerators} \\
 & = \frac{98}{9} = 10\frac{8}{9}
 \end{aligned}$$

$$\begin{aligned}
 \text{j) } & \frac{5}{44} + \frac{13}{44} \mid \text{convert to like quantities (lcm): 44} \\
 & = \frac{5}{44} + \frac{13}{44} \mid \text{add numerators} \\
 & = \frac{18}{44} \mid \text{reduce} \\
 & = \frac{9}{22}
 \end{aligned}$$

4)

Calculate the result.

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$$\begin{aligned}
 \text{a) } & \frac{4}{81} - \frac{2}{81} + \frac{74}{81} - \frac{7}{81} \mid \text{convert to like quantities (lcm): 81} \\
 & = \frac{4}{81} - \frac{2}{81} + \frac{74}{81} - \frac{7}{81} \mid \text{add numerators} \\
 & = \frac{69}{81} \mid \text{reduce} \\
 & = \frac{23}{27}
 \end{aligned}$$

$$\begin{aligned}
 \text{b) } & \frac{13}{82} + \frac{10}{41} - \frac{14}{41} + \frac{25}{82} \mid \text{convert to like quantities (lcm): 82} \\
 & = \frac{13}{82} + \frac{20}{82} - \frac{28}{82} + \frac{25}{82} \mid \text{add numerators} \\
 & = \frac{30}{82} \mid \text{reduce} \\
 & = \frac{15}{41}
 \end{aligned}$$

- c)  $\frac{11}{82} - \frac{3}{82} + \frac{12}{41} + \frac{9}{82}$  | convert to like quantities (lcm): 82  
 $= \frac{11}{82} - \frac{3}{82} + \frac{24}{82} + \frac{9}{82}$  | add numerators  
 $= \frac{41}{82}$  | reduce  
 $= \frac{1}{2}$
- d)  $\frac{7}{27} - \frac{1}{9} - \frac{2}{81} + \frac{7}{81}$  | convert to like quantities (lcm): 81  
 $= \frac{21}{81} - \frac{9}{81} - \frac{2}{81} + \frac{7}{81}$  | add numerators  
 $= \frac{17}{81}$
- e)  $\frac{17}{83} + \frac{14}{83} + \frac{25}{83} + \frac{4}{83}$  | convert to like quantities (lcm): 83  
 $= \frac{17}{83} + \frac{14}{83} + \frac{25}{83} + \frac{4}{83}$  | add numerators  
 $= \frac{60}{83}$
- f)  $\frac{7}{71} + \frac{6}{71} + \frac{29}{71} - \frac{16}{71}$  | convert to like quantities (lcm): 71  
 $= \frac{7}{71} + \frac{6}{71} + \frac{29}{71} - \frac{16}{71}$  | add numerators  
 $= \frac{26}{71}$
- g)  $\frac{35}{83} - \frac{22}{83} - \frac{11}{83} + \frac{51}{83}$  | convert to like quantities (lcm): 83  
 $= \frac{35}{83} - \frac{22}{83} - \frac{11}{83} + \frac{51}{83}$  | add numerators  
 $= \frac{53}{83}$
- h)  $\frac{5}{38} + \frac{21}{76} - \frac{29}{76} + \frac{9}{38}$  | convert to like quantities (lcm): 76  
 $= \frac{10}{76} + \frac{21}{76} - \frac{29}{76} + \frac{18}{76}$  | add numerators  
 $= \frac{20}{76}$  | reduce  
 $= \frac{5}{19}$
- i)  $\frac{9}{10} - \frac{5}{18} - \frac{8}{45} - \frac{11}{45}$  | convert to like quantities (lcm): 90  
 $= \frac{81}{90} - \frac{25}{90} - \frac{16}{90} - \frac{22}{90}$  | add numerators  
 $= \frac{18}{90}$  | reduce  
 $= \frac{1}{5}$

$$\begin{aligned} \text{j) } & \frac{8}{19} - \frac{2}{19} + \frac{11}{76} - \frac{9}{38} \mid \text{convert to like quantities (lcm): 76} \\ & = \frac{32}{76} - \frac{8}{76} + \frac{11}{76} - \frac{18}{76} \mid \text{add numerators} \\ & = \frac{17}{76} \end{aligned}$$

Good Luck!