

Warm-Up

September 12, 2019

1. Change the following into an improper fraction $-3\frac{1}{2}$

A. $\frac{7}{2}$

B. $\frac{-7}{2}$

C. $\frac{-5}{2}$

D. $\frac{5}{2}$

$\times 2$

2. Write the following as a mixed number. $\frac{-23}{3}$

A. $-7\frac{2}{3}$

B. $7\frac{2}{3}$

C. $-6\frac{1}{3}$

D. $-7\frac{1}{3}$

$-7\frac{2}{3}$

3. Add the following and give the answer in lowest terms if necessary.

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

A. $-3\frac{1}{5}$

B. $-3\frac{8}{15}$

C. $-3\frac{2}{15}$

D. $3\frac{8}{15}$

(3)
 $\times 3 \frac{-1}{5} + \frac{-10}{3} \times 5$

LCM = 15

$$\frac{-3}{15} + \frac{-50}{15}$$

$$\frac{-53}{15} = -3\frac{8}{15}$$

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

$$\begin{array}{l} \times 4 \quad -18 \\ \hline \times 4 \quad 7 \end{array} + \begin{array}{l} -13 \times 7 \\ \hline 4 \times 7 \end{array} \quad \text{LCM} = 28$$

$$\frac{-72}{28} + \frac{-91}{28}$$

$$\frac{-163}{28} = -5\frac{23}{28}$$

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

3, 6, 9
6, 12 ...
4, 8

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

LCM = 12

$$\begin{array}{r} +^4 - 2 \\ +^4 3 \end{array} + \begin{array}{r} +^2 - 4 \\ +^2 6 \end{array} + \begin{array}{r} +^3 25 \\ +^3 4 \end{array}$$

$$\frac{-28}{12} + \frac{-8}{12} + \frac{75}{12}$$

$$\frac{39}{12}$$

$$3\frac{3}{12}$$

$$\textcircled{3\frac{1}{4}}$$

Section 3.3 Subtracting Rational Numbers

Subtract the following:

$$a) \quad -8 - (-3) = -5$$

$$-8 + +3 = -5$$

$$b) \quad \frac{-8}{10} - \frac{-3}{5}$$

LCM=10

$\times 2$

$\times 2$

$$\frac{-8}{10} - \frac{-6}{10}$$

$$\frac{-2}{10} = \frac{-1}{5}$$

Express all answers in lowest terms: **Mixed # if needed.**

$$\frac{-3}{6} - \frac{7}{-3}$$

LCM = 6

$$\frac{-3}{6} - \frac{-7x^2}{3x^2}$$

$$\frac{-3}{6} - \frac{-14}{6}$$

$$\frac{11}{6}$$

$$\frac{1\frac{5}{6}}{6}$$

$$\begin{array}{l} -3 - -14 \\ -3 + 14 \end{array}$$

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

$$-\frac{23}{4} - -\frac{5}{2}$$

$$-\frac{23}{4} - \left(\frac{-5}{2}\right)$$

$$-\frac{23}{4} - \frac{-10}{4}$$

$$\frac{-13}{4} \quad \text{circled } -3\frac{1}{4}$$

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

$$\frac{-15}{4} - \frac{2 \times 4}{1 \times 4}$$

$$\frac{-15}{4} - \frac{8}{4}$$

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

$$\textcircled{-5\frac{3}{4}}$$

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

$$x^2 \frac{2}{1} + \frac{-5}{2} - \frac{3}{2}$$

$$\frac{4}{2} + \frac{-5}{2} - \frac{3}{2}$$

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

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#11 [all]

#14 [c,d]

Lowest Terms, Mixed #
When necessary!

Answers

11. a) $\frac{7}{6}$ e) $-4\frac{1}{12}$
 b) $\frac{2}{15}$ f) $-\frac{1}{30}$
 c) $-3\frac{17}{20}$ g) $\frac{7}{8}$
 d) $7\frac{1}{10}$ h) $-3\frac{5}{6}$
-
14. c) $\frac{16}{15} = 1\frac{1}{15}$ d) $1\frac{1}{20}$

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#13 [C]

- #9 a) $-3\frac{5}{6}$
 b) $-4\frac{4}{15}$
 c) $-4\frac{1}{12}$

- d) $-4\frac{1}{24}$
 e) $3\frac{1}{3}$
 f) $2\frac{3}{24}$

- #12 c) $2\frac{1}{4}$
 d) $-6\frac{4}{15}$

- #13.
 c) $4\frac{43}{60}$