Adding & Subtracting Rational Numbers Part 2

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11:19 AM

Mathematics 9
Rational Numbers
Adding & Subtracting Rational Numbers
Part 2

A. Adding & Subtracting with Mixed Numbers

It is generally easiest if you change the Mixed Numbers into Improper Fractions before trying to add or subtract. **Remember to pay particular attention to the integer rules when working with the numbers.**

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

$$-\frac{13}{4}\times\frac{3}{3}+\frac{8}{3}\times\frac{4}{4}$$

$$\frac{-39}{12}+\frac{32}{12}$$

$$=\boxed{\frac{-7}{12}}$$

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

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

$$-\frac{7}{2}\times\frac{5}{5}+\frac{6}{5}\times\frac{2}{2}$$

$$\frac{-35}{10}+\frac{12}{10}$$

$$=\boxed{\frac{-23}{10}\text{ or }-2\frac{3}{10}}$$

B. Practice Questions

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

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

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

$= \boxed{\frac{2}{3}}$

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

$\frac{-19}{4} + \frac{9}{4}$

$= \frac{-10 \div 2}{4 \div 2}$

$= \boxed{\frac{-5}{2} \text{ or } -2\frac{1}{2}}$

3) $\left(1\frac{3}{4}\right) - \left(4\frac{5}{8}\right)$

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

$\frac{7^{\times 2}}{4_{\times 2}} + \frac{-37}{8}$

$\frac{14}{8} + \frac{-37}{8}$

$= \boxed{\frac{-23}{8} \text{ or } -2\frac{7}{8}}$

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

$\frac{7^{\times 2}}{2_{\times 2}} + \frac{-9}{4}$

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

$= \boxed{\frac{5}{4} \text{ or } 1\frac{1}{4}}$

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

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

$-\frac{11^{\times 5}}{2_{\times 5}} + \frac{13_{\times 2}}{5_{\times 2}}$

$\frac{-55}{10} + \frac{26}{10}$

$= \boxed{\frac{-29}{10} \text{ or } -2\frac{9}{10}}$

6) $6 + \left(-3\frac{3}{4}\right)$

$\frac{6^{\times 4}}{1_{\times 4}} + \frac{-15}{4}$

$\frac{24}{4} + \frac{-15}{4}$

$= \boxed{\frac{9}{4} \text{ or } 2\frac{1}{4}}$

Assignment: Adding & Subtracting Rational Numbers Part 2 Assignment

Name:_____

Adding & Subtracting Rational Numbers Part 2

1. $3\frac{7}{8}+1\frac{7}{8}$

2. $2\frac{3}{5}-1\frac{2}{7}$

3. $\left(-4\frac{1}{2}\right)-1\frac{1}{3}$

4. $\frac{3}{8}-2\frac{1}{4}$

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

6. $1\frac{5}{8}-3$

7. $4\frac{1}{2}+\left(-\frac{5}{6}\right)$

8. $\left(-1\frac{1}{4}\right)-2\frac{1}{6}$

9. $3\frac{2}{3}+\left(-1\frac{3}{4}\right)$

10. $2-4\frac{1}{3}$

11. $1\frac{3}{8}-\left(-\frac{5}{6}\right)$

12. $\frac{7}{9}+\left(-1\frac{1}{5}\right)$

13. $(-5)+2\frac{1}{4}$

14. $\left(-\frac{7}{27}\right)-1\frac{2}{3}$

15. $\left(-2\frac{5}{8}\right)-3\frac{1}{6}$

16. $\frac{7}{10}+\left(-3\frac{1}{2}\right)$

Answers

1) $\frac{23}{4}$

2) $\frac{46}{35}$

3) $-\frac{35}{6}$

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

5) $\frac{119}{20}$

6) $-\frac{11}{8}$

7) $\frac{11}{3}$

8) $-\frac{41}{12}$

9) $\frac{23}{12}$

10) $-\frac{7}{3}$

11) $\frac{53}{24}$

12) $-\frac{19}{45}$

13) $-\frac{11}{4}$

14) $-\frac{52}{27}$

15) $-\frac{139}{24}$

16) $-\frac{14}{5}$