Work sheet 2. VIII.

1. Subtract the sum of $\frac{1}{4}$ and $-\frac{3}{8}$ from the additive inverse of $-\frac{3}{8}-\left(-\frac{2}{7}\right)$.

2. Simplify

$$-\frac{3}{10}+-\frac{3}{20}+\frac{7}{15}+\frac{-9}{10}+\frac{-13}{20}+\frac{13}{15}$$

3. Simplify and write the result in the form p/q

(a) $\left(\frac{7}{2}\times\frac{5}{3}\right)+\left(\frac{1}{6}\times\frac{3}{2}\right)-\left(\frac{4}{3}\times\frac{13}{8}\right)$.

(b) $\left(\frac{1}{4}\times\frac{1}{2}\right)+\left(\frac{-15}{7}\times\frac{7}{-18}\right)-2\times\frac{1}{4}$

(c) $\frac{7}{3}+\frac{-4}{5}+\frac{-2}{5}+\frac{1}{5}\times 3$.

4. Represent the following on the number line

(a) $-\frac{3}{5}$, (b) $\frac{8}{3}$ (c) $\frac{1}{3}$ (d) $-\frac{7}{2}$

5. Simplify

(a) $\frac{5}{12}\div\frac{-3}{14}$ (b) $\frac{-20}{32}\div\frac{8}{15}$

(c) $\frac{21}{25}\div\frac{14}{10}$ (d) $\frac{-16}{35}\div\frac{15}{-12}$.

Work sheet 3. VIII.

1. Check if

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

2. Simplify

(a) $\frac{5}{8} \times -\frac{6}{20} \times \frac{11}{18} \times \frac{-4}{33}$

(b) $-\frac{2}{7} \times -\frac{28}{15} \times \frac{-5}{-4} \times \frac{3}{8} \times 9.$

(c) $-\frac{3}{5} \times \frac{4}{6} \times \frac{7}{15} \times \frac{-12}{8}.$

3. Verify that

(a) $\frac{3}{4} \times \left(-\frac{1}{3} + \frac{5}{6}\right) = \left\{\frac{3}{4} \times \left(-\frac{1}{3}\right)\right\} + \left(\frac{3}{4} \times \frac{5}{6}\right)$

(b) $\frac{2}{3} \times \left(\frac{2}{5} - \frac{7}{10}\right) = \left(\frac{2}{3} \times \frac{2}{5}\right) - \left(\frac{2}{3} \times \frac{7}{10}\right).$

4. What should be subtracted from the sum of $\frac{7}{8}$ and $\frac{4}{15}$ to get $\frac{9}{40}$?

5. Simplify (a) $\frac{-13}{20} + \frac{11}{14} + \left(\frac{-5}{7}\right) + \frac{7}{10}.$

(b) $-\frac{3}{4} + \frac{1}{2} + \left(\frac{-7}{3}\right) + 4 + \frac{5}{6}.$

(c) $\left(\frac{-7}{9}\right) + \frac{2}{1} + \left(\frac{6}{7}\right) - \frac{13}{21}.$

1 Work sheet class VIII.

MATHEMATICS.

Rational Numbers.

1 Represent $-\frac{2}{11}, -\frac{5}{11}, -\frac{9}{11}$ on the number line.

2. Find ten rational numbers between $-\frac{2}{5}$ and $\frac{1}{2}$.

3. Find ten rational numbers between $\frac{3}{5}$ and $\frac{3}{4}$.

4. Find two rational numbers whose absolute value is $\frac{1}{5}$.

5. A skirt is $35\frac{7}{8}$ cm long has a hem of $3\frac{1}{8}$ cm. How long will the skirt be if the hem is let down?

6. If $\frac{3}{5}$ of a number exceeds its $\frac{2}{7}$ by 44, find the number.

7. Divide the sum of $-\frac{5}{4}$ and $-\frac{1}{3}$ by their difference.

8. By what number should $-\frac{28}{15}$ be multiplied to get the multiplicative inverse of $-\frac{5}{7}$?

9. From what number should $-\frac{8}{21}$ be subtracted to get $\frac{29}{63}$?

Worksheet 4

1. Simplify:

(a) $\{5^{-1} \div 3^{-1}\}^{-1} \times 2^{-1}$.

(b) $\left\{\left(\frac{1}{3}\right)^{-2} \times \left(\frac{1}{2}\right)^{-2}\right\} \div \left(\frac{1}{4}\right)^{-3}$.

(c) $\{3^2 + 2^2 - 4^2\} \div \left(\frac{3}{2}\right)^2$

(d) $\{3^{-5} \times (10)^{-5} \times 125\} \div \{(5)^{-7} \times (6)^{-5}\}$

2. By what number should $\left(-\frac{4}{3}\right)^{-3}$ be divided to get the quotient as $\left(\frac{16}{25}\right)^{-2}$?

3. Divide the sum of $\left(-\frac{1}{2}\right)^{-2}$ and $\left(-\frac{1}{3}\right)^{-2}$ by the difference of $\left(\frac{1}{5}\right)^{-1}$ and $\left(\frac{1}{4}\right)^{-1}$

4. Simplify:

(a) $\left(-\frac{2}{3}\right)^5 \div \left(-\frac{2}{3}\right)^7 \times \left(-\frac{2}{3}\right)^{-5}$

(b) $\{3^{-7} \div 3^{-10}\} \times 3^{-5}$.

(c) $\left\{\left(\frac{1}{4}\right)^{-3} - \left(\frac{1}{3}\right)^{-3}\right\} \div \left(\frac{1}{5}\right)^{-3}$.

Work sheet 5. (VIII).

1. Simplify (a) $\frac{3^{-5} \times 10^{-5} \times 125}{(5)^{-7} \times (6)^{-5}}$.

(b) $\frac{25 \times (p)^{-4}}{(5)^{-3} \times 10 \times (p)^{-8}}$

2. Find the reciprocal of $\left(\frac{9}{2}\right)^{-5} \div \left(\frac{2}{9}\right)^{-3}$

3. Find the value of n if $\left(-\frac{2}{3}\right)^{-3} \times \left(-\frac{2}{3}\right)^{11} = \left(-\frac{2}{3}\right)^{3n+2}$.

4. If $\frac{p}{q} = \left(\frac{2}{3}\right)^{-2} \div \left(\frac{2}{5}\right)^{-1}$, find the value of $\left(\frac{p}{q}\right)^{-3}$.

5. If $n = \left(\frac{2}{3}\right)^{-4} \times \left(\frac{3}{2}\right)^{2}$. find the value of (a) n^{-2} (b) $(n)^{-1}$ (c) $(n)^{2}$.

6. Find n if $\left(\frac{-3}{5}\right)^{14} \times \left(\frac{-3}{5}\right)^{-3} = \left(\frac{3}{5}\right)^{3n+2}$.