B.E.S.T. Group Of Schools, Saudi Arabia

Class: 8 Worksheet - 1
Subject: Mathematics

Examination: PMT (2018)
Block 1, 2 & 3

1-mark questions:

1. The additive inverse of 0 is ……..
2. The product of a rational number and its reciprocal is ……..
3. The reciprocal of a positive rational number is ……
4. The numbers …….. and ……. has its own reciprocals.
5. The sum of a rational number and its additive inverse is ……..
6. The difference of two rational numbers is a ……
7. A two-digit number whose one's digit is *x* and ten's digit is *y* is ……
8. If $2x - 2 = x + 4$, then *x* equals ……

2-mark questions:

1. Solve: $\frac{3x+2}{4x+11} = \frac{4}{7}$
2. Convert the following in decimal form:

   (i) $\frac{7}{5}$ (ii) $\frac{17}{6}$
3. The greater of two numbers is 12 more than the smaller and the sum of the two numbers is 10. Find the numbers.
4. Represent the following on the same number line:

   (i) $\frac{1}{3}$ (ii) $-1\frac{1}{3}$
5. Find three consecutive numbers whose sum is 108.
6. Simplify: $\frac{5}{6} + \frac{7}{18} + \frac{-11}{12}$.
7. Find a rational number between $\frac{1}{4}$ and $\frac{1}{3}$ using mean method.

3-mark questions:

1. Convert $0.\overline{54}$ into its rational form.
2. Kiran is 24 years older than Rakesh. 10 years back Kiran's age was five times the age of Rakesh. Find their ages.
3. Find 10 rational numbers between $\frac{-3}{4}$ and $\frac{5}{6}$.
4. The width of rectangle is two-third its length. If the perimeter is 180 meters, find the dimensions of the rectangle.
5. Solve: $\frac{y+6}{4} + \frac{y-3}{5} = \frac{5y-4}{8}$
6. Solve: $4(x+3) - 2(x-1) = 3x + 3$

4-mark questions:

1. Sum of the digits of a two-digit number is 9. The number obtained by interchanging the digits exceeds the given number by 27. Find the given number.
2. Solve the following using associative property of rational numbers:

   (i) $\frac{1}{2} + \frac{5}{7} + \frac{6}{11}$ (ii) $\frac{9}{13} \times \frac{3}{10} \times \frac{5}{2}$
3. The denominator of a rational number is greater than its numerator by 8. If the numerator is increased by 17 and the denominator is decreased by 1, the number obtained is $\frac{3}{2}$. Find the rational number.
4. Using distributive property of multiplication over addition to simplify:

   (i) $\frac{7}{5} \times \left(\frac{5}{8} + \frac{1}{2}\right)$ (ii) $\frac{-3}{8}\left(\frac{4}{7} + \frac{-11}{7}\right)$
5. A boy gets 3 marks for each correct sum and loses 2 marks for each incorrect sum. He does 24 sums and obtains 37 marks, find the number of sums he attempted correctly.

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