

Grade 6 Bilingual Math worksheet: Rational number and calculation

Name: _____

Score: _____

Show all work clearly and in order, and circle your final answers. Justify your answers algebraically whenever possible; when you do use your calculator, sketch all relevant graphs and write down all relevant mathematics.

Due: 26 Aug.

1. Put all these number into appropriate categories

$$2, -5, 0, 0.3, -1\frac{3}{4}, \frac{1}{5}, 36, -2.5$$

- Positive numbers:
- Negative numbers:

2. What are the three elements to draw a number axis? Draw a number axis, put the following pairs on it and compare the quantity in each pair.

(1) 2.5 and $2\frac{1}{3}$

(2) -2 and -3

(3) 2,-2 and 2.5

3. Find all the integers whose absolute value is greater than 2 and less than 7.

4. Calculate and simplify your results.

(1) $(-\frac{5}{18}) + (-\frac{1}{6})$

(2) $(2\frac{3}{4}) + (-2.75)$

(3) $(-\frac{1}{4}) + \frac{1}{7} - \frac{3}{4} + \frac{4}{5}$

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

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

(6) $(-2\frac{1}{3}) \times (1 - 1\frac{2}{7}) + (-5\frac{1}{3}) \div 1\frac{7}{9}$

(7) $(-\frac{3}{8}) \times (-4)^3 - 0.25 \times (-5) \times (-2)^5$

5. If $|a| = 3$, $|b| = 5$, find all possible values for $a-b$.

6. Given that $|a - 2| + |3 - b| = 0$, find the values for a and b .

7. The square of a number x equals to itself, find all the possible x .