

Rational Numbers Assignment

Math 8

ANSWERS

Identify each number as rational or irrational.

1.

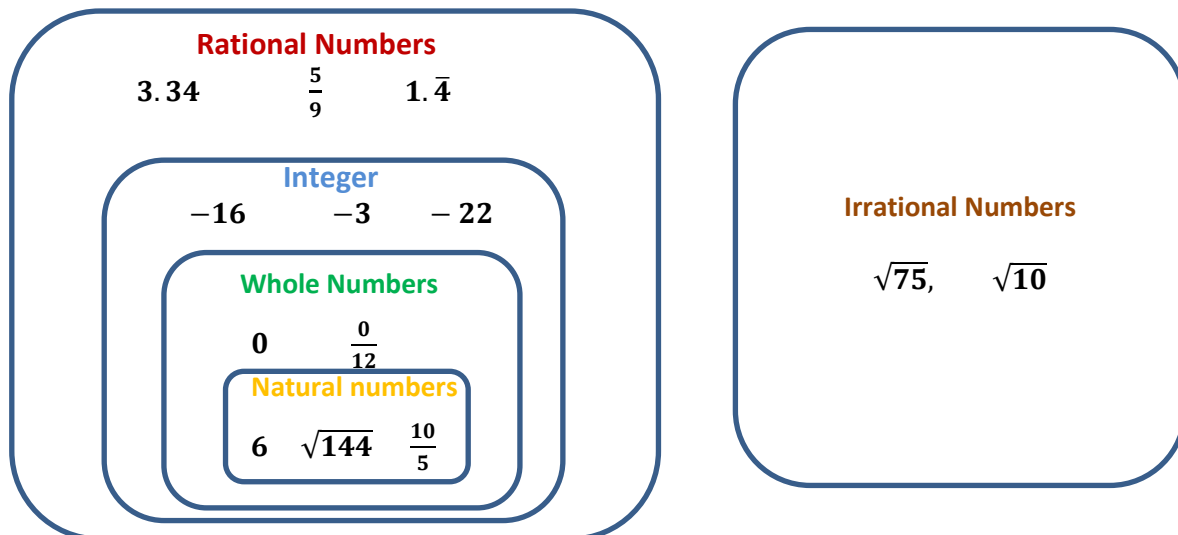
$\frac{5}{10}$	Rational
-3.4	Rational
$\sqrt{121}$	Rational
$\sqrt{31}$	Irrational
-4	Rational
1.9999	Rational
$5.\bar{5}$	Rational
$\sqrt{35}$	Irrational

2.

$\sqrt{\frac{5}{11}}$	Irrational
6	Rational
$\sqrt{529}$	Rational
$\sqrt{12}$	Irrational
$-13.\bar{1}$	Rational
1.2323	Rational
$-9.\bar{8}$	Rational
$\sqrt{11}$	Irrational

3. Classify the numbers by writing them in the appropriate section of the Venn Diagram.

3.34, $\frac{5}{9}$, $\sqrt{75}$, 6, $\sqrt{10}$, -22, 0, $\sqrt{144}$, -16, $1.\bar{4}$, -3, $\frac{0}{12}$, $\frac{10}{5}$



Rational Numbers Assignment**Math 8**

Write each rational number as fraction with denominator 2.

4.

$$51 = \frac{102}{2}$$

5.

$$-45 = \frac{-90}{2}$$

Write each rational number as fraction with denominator 1.

6.

$$-3 = \frac{-3}{1}$$

7.

$$434 = \frac{434}{1}$$

Write each rational number in the form $\frac{p}{q}$, where p and q are integers.

8.

$$78 = \frac{78}{1}$$

9.

$$-12 = \frac{-36}{3}$$

10.

$$0.4 = \frac{4}{10}$$

11.

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

Write the numbers in order from least to greatest.

12. $-1, -1.\bar{4}, 1.\bar{4}, 1.4$

$$-1.\bar{4} < -1 < 1.4 < 1.\bar{4}$$

13. $122.5, -122.51, -122.5, 122.\bar{5}$

$$-122.51 < -122.5 < 122.5 < 122.\bar{5}$$

14. $\frac{1}{12}, \frac{-1}{12}, \frac{12}{1}, \frac{-12}{1}$

$$\frac{-12}{1} < \frac{-1}{12} < \frac{1}{12} < \frac{12}{1}$$

15. $4\frac{2}{3}, -4\frac{2}{3}, -\frac{2}{3}, \frac{2}{3}$

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

Rational Numbers Assignment

Math 8

Graph each pair of numbers on the number line. Use the graph and write $<$, $>$ or $=$ to compare the numbers.

16.

$$-3\frac{1}{2} < 1.9$$

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

$$1.9$$



17.

$$-3.1 < -\frac{3}{1}$$

$$-3.1$$

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



18.

$$2.\bar{9} > 2.9$$

$$2.\bar{9}$$

$$2.9$$



19.

$$-3.\bar{1} < -3.1$$

$$-3.\bar{1}$$

$$-3.1$$



Identify each decimal as repeating or terminating.

20.

1666.5	terminating decimal
4.3434 ...	repeating decimal
$1.\bar{7}$	repeating decimal
44.05	terminating decimal

21.

-33.3	terminating decimal
22.2	terminating decimal
$1.\bar{2}$	repeating decimal
11.10	terminating decimal

22.

$-0.\bar{91}$	repeating decimal
$11.\bar{6}$	repeating decimal
7.2	terminating decimal
0.05	terminating decimal

23.

-1.6	terminating decimal
5.16	terminating decimal
13.9	terminating decimal
$14.\bar{5}$	repeating decimal