Rational Numbers Worksheet

Number and Quantity

Grades 6 to 8

Rational Numbers Worksheet | Grades 6 to 8

Skill Questions

Name: ....

Date: ....

1 Show that -23 is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.

Answer

2 Show that 55 is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.

Answer

3 Show that $-3\frac{1}{3}$ is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.

Answer

4 Show that 0.245 is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.

Answer

5 Show that $9\frac{3}{4}$ is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.

Answer

6   Why is 0.3421 a rational number?

_____

7   Why is −1.2 a rational number?

_____

8   Why is $3{,}456\frac{4}{5}$ a rational number?

_____

9   Why is −37 a rational number?

_____

10   Why is $0.\overline{8}$ a rational number?

_____

Applied Questions

11 Which one of these numbers is a rational number that lies between 3.5 and $3\frac{2}{3}$?

a) 3.7
b) 3.6
c) 3.43
d) 3.67
e) 3.49

Answer

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12 Show three rational numbers that are close to –4 on the number line.

-4

Answer

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13 Which one of these numbers is a rational number that lies between –0.8 and $-\frac{1}{5}$?

a) -16
b) –0.81
c) –0.9
d) –0.2
e) $-\frac{2}{5}$

Answer

14 Show three rational numbers that are close to 3.785 on the number line.

$$\longleftrightarrow \quad \underset{3.785}{\mid} \quad \longrightarrow$$

Answer

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15 Kayla says "$-3\frac{3}{4}$ is not a rational number, because it is negative and it is not a fraction."

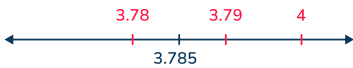Explain whether or not Kayla's statement is correct, including explaining any mistakes.

_____

_____

_____

Answers

Question number	Question	Answers	Standard
1	Show that –23 is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.	$-\frac{23}{1}$	6.NS.C.6
2	Show that 55 is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.	$\frac{55}{1}$	6.NS.C.6
3	Show that $-3\frac{1}{3}$ is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.	$-\frac{10}{3}$	6.NS.C.6
4	Show that 0.245 is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.	$\frac{245}{1000}$	6.NS.C.6
5	Show that $9\frac{3}{4}$ is a rational number by expressing it as a fraction in the form $\frac{p}{q}$ where p and q are integers.	$\frac{39}{4}$	6.NS.C.6
6	Why is 0.3421 a rational number?	It can be expressed as a fraction in the form $\frac{a}{b}$ where a and b are integers; $\frac{3421}{10,000}$	6.NS.C.6

Rational Numbers Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
7	Why is −1.2 a rational number?	It can be expressed as a fraction in the form $\frac{a}{b}$ where a and b are integers; $-\frac{12}{10}$.	6.NS.C.6
8	Why is $3{,}456\frac{4}{5}$ a rational number?	It can be expressed as a fraction in the form $\frac{a}{b}$ where a and b are integers; $\frac{17{,}284}{5}$	6.NS.C.6
9	Why is −37 a rational number?	It can be expressed as a fraction in the form $\frac{a}{b}$ where a and b are integers; $-\frac{37}{1}$.	6.NS.C.6
10	Why is $0.\overline{8}$ a rational number?	It is a repeating decimal and can be expressed as fractions in the form $\frac{a}{b}$ where a and b are integers; $\frac{8}{9}$.	6.NS.C.6
11	Which one of these numbers is a rational number that lies between 3.5 and $3\frac{2}{3}$? a) 3.7 b) 3.6 c) 3.43 d) 3.67 e) 3.49	b) 3.6	6.NS.C.6
12	Show three rational numbers that are close to −4 on the number line. 	Answers will vary. Example answer: 	6.NS.C.6

Question number	Question	Answers	Standard
13	Which one of these numbers is a rational number that lies between −0.8 and $-\frac{1}{5}$? a) -16 b) −0.81 c) −0.9 d) −0.2 e) $-\frac{2}{5}$	e) $-\frac{2}{5}$	6.NS.C.6
14	Show three rational numbers that are close to 3.785 on the number line. 3.785	*Answers will vary.* Example answer: 3.78 3.79 4 3.785	6.NS.C.6
15	Kayla says "$-3\frac{3}{4}$ is not a rational number, because it is negative and it is not a fraction." Explain whether or not Kayla's statement is correct, including explaining any mistakes.	*Explanations will vary.* Example answer: Kayla is incorrect, because $-3\frac{3}{4}$ can be written as the improper fraction $-\frac{15}{4}$, which can be shown as the ratio of two integers, so it is rational.	6.NS.C.6

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