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RATIONAL NUMBERS

Q1. Find three rational numbers between $\frac{3}{4}$ and $\frac{5}{6}$ with denominator 48.

Answer: _____

Q2. Find whether $\frac{19}{30}$ lies exactly between $\frac{3}{5}$ and $\frac{2}{3}$ on the number line or not.
Tick the correct option.

Answer: (Yes/No)

Q3. Arrange the following in descending order.

a. $1\frac{1}{3}, -\frac{5}{3}, \frac{-2}{7}, \frac{-1}{-42}$

Answer: _____

b. $2\sqrt{3}, \sqrt{75}, \sqrt{27}, 2\sqrt{12}$

Answer: _____

Q4. Add $\frac{2}{7}$ and $\frac{6}{7}$ on the number line given below.



Q5. Find equivalent fraction of $\frac{3}{7}$ with:

a. Numerator -21:

Answer: _____

b. Denominator 42:

Answer: _____

Q6. Simplify the following and write whether each of them will lie to the right or left of zero on the number line:

Simplify	Solution	Left/Right of zero on the number line
a. $\frac{21}{22} \times \frac{17}{-7} \times \frac{-11}{34}$		
b. $\frac{-6}{19} \times \frac{55}{-18} \times \frac{-57}{66}$		

Q7. Gauri requires $5\frac{1}{4}$ m of cloth to make a curtain. She bought 90 m of cloth to make 16 such curtains. How much cloth will be left after making all the 16 curtains?

Answer: _____

Q8. Fill in the blanks:

a. $\left(\frac{12}{13} \times \frac{4}{5}\right) \times \frac{1}{3} = \frac{12}{13} \times \left(\frac{4}{5} \times \text{---}\right)$

b. $\frac{12}{23} \div \text{---} = \frac{12}{23}$

c. $\frac{7}{13} + \text{---} = \frac{7}{13}$

d. $\frac{17}{93} + \text{---} = 0$

Q9. Simplify:

a. $2\sqrt{7}(\sqrt{28} + 3\sqrt{112})$

Answer: _____

b. $(2\sqrt{2} + 6\sqrt{5})(2\sqrt{10} - 3\sqrt{121})$

Answer: _____

Q10. Simplify the following:

a. $\frac{\sqrt{162} - \sqrt{32}}{\sqrt{242} - \sqrt{50}}$

b. $\frac{2\sqrt{7}}{\sqrt{5} - \sqrt{3}}$

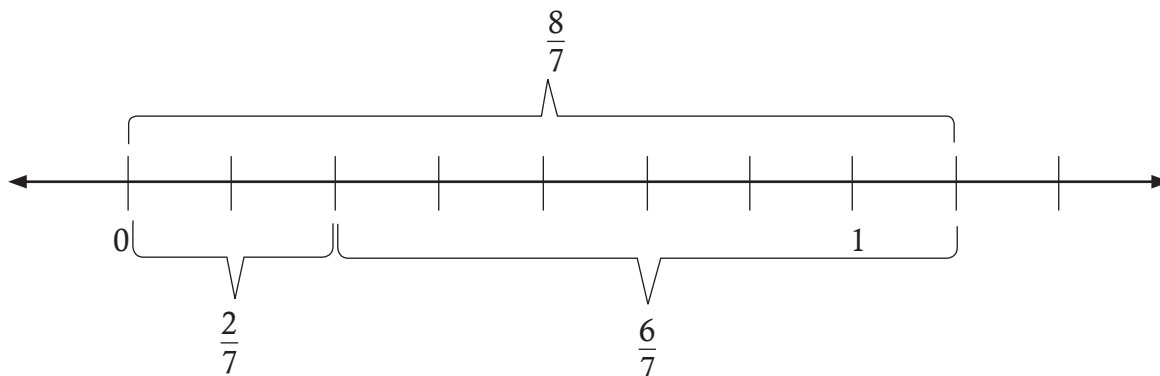
Answers

1. $\frac{37}{48}, \frac{38}{48}, \frac{39}{48}$

2. Yes

3. a. $1\frac{1}{3} > \frac{-1}{-42} > \frac{-2}{7} > -\frac{5}{3}$; b. $\sqrt{75} > 2\sqrt{12} > \sqrt{27} > 2\sqrt{3}$

4.



5. a. $\frac{-21}{-49}$; b. $\frac{18}{42}$

6.

Simplify	Solution	Left/Right of zero on the number line
a. $\frac{21}{22} \times \frac{17}{-7} \times \frac{-11}{34}$	$\frac{3}{4}$	Right
b. $\frac{-6}{19} \times \frac{55}{-18} \times \frac{-57}{66}$	$-\frac{5}{6}$	Left

7. 6 m

8. a. $\frac{1}{3}$; b. 1; c. 0; d. $-\frac{17}{93}$

9. a. 196; b. $84\sqrt{2} - 190\sqrt{5}$

10. a. $\frac{5}{6}$; b. $\sqrt{35} + \sqrt{21}$