



# **BJC MATHEMATICS TUTORIALS**

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**Suggested Mathematic texts:**

**Math Matters Book 1**

**By Geoff Buckwell & Robert Soloman**

**Nelson Caribbean Mathematics Book 1 & 2**

**By Marlene Folkes & Mary Maxwell**

# What We'll Cover in This Lesson

- 1) +, -, x, ÷ decimal/vulgar fractions & mixed numbers
- 2) Using operations with vulgar fractions to solve word problems

# Adding and Subtracting Vulgar Fractions

- Remember:
  - 1) To add or subtract fractions, they must have a **common denominator**
  - 2) When adding or subtracting fractions, **add or subtract the numerators only**; the **denominators remain the same**. Reduce the solution if possible.

# Multiplying and Dividing Vulgar Fractions



- Remember:
  - To **multiply** fractions, simply multiply the numerators together and the denominators together.
  - To **divide** fractions, remember the phrase “**KEEP CHANGE FLIP**”

# $+$ , $-$ , $\times$ , $\div$ Mixed Numbers

- 1) Change the mixed numbers to improper fractions
- 2) Follow the strategies for performing these operations on proper fractions
- 3) If the solution is an improper fraction, change back into a mixed number

# $+$ , $-$ , $\times$ , $\div$ Mixed Numbers Practice



# Adding and Subtracting Decimal Fractions



- Arrange the numbers in a vertical column with the decimal points aligned, then add or subtract as indicated



# Multiplying Decimal Fractions

- To start, ignore the decimals and multiply the factors
- Count the **total number of decimal places in the factors** to determine the **number of decimal places in the product**





# Dividing Decimal Fractions

- If the divisor has a decimal point, move it to the **right** as many places as necessary to make it a whole number
- Move the decimal point of the dividend the same number of places as the divisor
- Place the decimal point of the quotient directly above the decimal point in the dividend

# Operations with Decimals Practice





# Word Problems with Fractions/Mixed Numbers

- Sarah took a test that had 40 questions on it. She answered  $\frac{7}{8}$  of the questions correctly. How many questions did she answer correctly?

# Word Problems with Fractions/Mixed Numbers

- Michael's bread recipe requires  $2\frac{1}{6}$  cups of flour. However, he only has  $1\frac{1}{3}$  cups of flour. How much more flour will he need before he can make the bread?

# Practice Assignments

A highway is 45 km in length.  $\frac{2}{3}$  of the highway is paved. How many km of the Highway is paved?

Answer: \_\_\_\_\_ [2]

# Practice Assignments

17. During one week Tim spends  $\frac{1}{6}$  of his time with entertainment,  $\frac{1}{3}$  doing lessons and  $\frac{1}{9}$  in sports.

Entertainment $\frac{1}{6}$	LESSONS $\frac{1}{3}$	Sports $\frac{1}{9}$	Other Things
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Calculate

- (a) the total fraction of his time occupied,

Answer: \_\_\_\_\_ [3]

- (b) the fraction of his time left to do other things.

Answer: \_\_\_\_\_ [2]

# Practice Assignments

I completed  $\frac{2}{3}$  of my project last month and  $\frac{1}{4}$  of it this week.

- (a) What fraction of my project is completed?

Answer: \_\_\_\_\_ [3]

- (b) What fraction of my project is not completed?

Answer: \_\_\_\_\_ [1]

# Practice Assignments





# Solutions to Practice Assignments

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