

# Quarter Mile Math Level 2

## Topics Covered

### Whole Numbers

#### Addition brush-up topics

- Addition: 0+0 through 5+5
- Addition: 0+0 through 10+10
- Addition: 0+0 through 20+20
- Addition: 0+0 through 200+90

#### Subtraction brush-up topics

- Subtraction: 0-0 through 10-5
- Subtraction: 0-0 through 20-10
- Subtraction: 0-0 through 20-20
- Subtraction: 0-0 through 200-200

#### Multiplication topics

- Multiplication: 1's tables
- Multiplication: 2's tables
- Multiplication: 3's tables
- Multiplication: 4's tables
- Multiplication: 5's tables
- Multiplication: 6's tables
- Multiplication: 7's tables
- Multiplication: 8's tables
- Multiplication: 9's tables
- Multiplication: 10's tables
- Multiplication: 11's tables
- Multiplication: 12's tables
- Multiplication: 0x0 through 2x2
- Multiplication: 0x0 through 3x3
- Multiplication: 0x0 through 4x4
- Multiplication: 0x0 through 5x5
- Multiplication: 0x0 through 6x6
- Multiplication: 0x0 through 7x7
- Multiplication: 0x0 through 8x8
- Multiplication: 0x0 through 9x9
- Multiplication: 1x1 — 10x10
- Multiplication: 1x1 — 11x11
- Multiplication: 1x1 — 12x12
- Multiplication: 2x2 — 25x25

### Division topics

- Dividing by 1's
- Dividing by 2's
- Dividing by 3's
- Dividing by 4's
- Dividing by 5's
- Dividing by 6's
- Dividing by 7's
- Dividing by 8's
- Dividing by 9's
- Dividing by 10's
- Dividing by 11's
- Dividing by 12's
- Division: 0/1 through 4/2
- Division: 0/1 through 9/3
- Division: 0/1 through 16/4
- Division: 0/1 through 25/5
- Division: 0/1 through 36/6
- Division: 0/1 through 49/7
- Division: 0/1 through 64/8
- Division: 0/1 through 81/9
- Division: 4/2 through 100/10
- Division: 4/2 through 121/11
- Division: 4/2 through 144/12
- Division: 4/2 through 200/20

### Combination facts topics

- Add and sub through the 10's
- Mul and div through the 10's
- Add/sub/mul/div combination
- Mixed operations

### Important 10's facts topics

- Making 10's with 2 numbers
- 10 minus
- Making 10's with 3 numbers
- 2 numbers subtracted from 10
- Mul and div by 10, 100, 1000

### Missing number topics

- Missing number: adding
- Missing number: subtracting
- Missing number: multiplying
- Missing number: dividing
- Missing number: combination

### Missing operator(s) topics

- 1 operator: add / sub
- 1 operator: add / sub / mul / div
- 2 operators: add / sub
- 2 operators: add / sub / mul

### Rounding topics

- Rounding to the nearest 10
- Rounding to the nearest 100
- Rounding to the nearest 1000

### Powers of 10 topics

- The basics (no exponents)
- Exponent equivalents
- Multiplying with exponents
- Find the exponent: mul
- Find the exponent: mul / div
- Identifying big numbers

### Squares topics

- Squares through 12x12
- Squares through 20x20
- Squares through 25x25
- Exponents

### Mean (average), mode, median topics

- Mean: level 1
- Mean: level 2
- Mean: level 3
- Mean, mode, and median

### Base 2 and base 16 topics

- Base 10 to base 2
- Base 2 to base 10
- Base 10 and 16: equivalents
- Base 10 to base 16
- Base 16 to base 10

## Fraction Introduction

### Divisibility, prime numbers topics

- Divisibility by 2, 3 and 5
- Divisibility by 2, 3, 4, 5 and 6
- Prime numbers

### GCF, LCM and LCD topics

- Greatest common factor
- GCF: advanced
- Least common multiple
- LCM: advanced
- Least common denominator
- LCD: advanced

### Reducing, converting, etc. topics

- Reducing fractions
- Reducing fractions: advanced
- Converting improper fractions to mixed
- Converting mixed fractions to improper
- Proportions
- Proportions -- advanced
- Simplest form (reduced and mixed)
- Comparing fractions
- Fraction topics combination

## Fractions

### Computing with fractions topics

- Fractions: adding likes
- Fractions: “ “ - advanced
- Fractions: subtracting likes
- Fractions: adding/subtract. likes
- Fractions: adding
- Fractions: subtracting
- Fractions: adding and subtracting
- Fractions: multiplying (proper)
- Fractions: multiplying
- Fractions: dividing
- Fractions: multiplying/dividing
- Fractions: add / sub / mul / div

## Decimals

### Naming and rounding decimals topics

- Decimals: naming
- Decimals: rounding

### Decimal computation topics: level 1 topics

- Decimals: adding
- Decimals: subtracting
- Decimals: adding and subtracting
- Decimals: multiplying
- Decimals: dividing
- Decimals: multiplying/dividing
- Decimals: add / sub / mul / div

### Decimal computation topics: level 2 topics

- Decimals: advanced-adding
- Decimals: advanced-subtracting
- Decimals: advanced-add/sub
- Decimals: advanced-multiplying
- Decimals: advanced-dividing
- Decimals: advanced-mul/div
- Decimals: advanced-add/sub/mul/div

## Percents

### Converting topics

- Converting: fractions-percents
- Converting: percents-fractions
- Converting: fractions-decimals
- Converting: decimals-fractions
- Converting: percents-decimals
- Converting: perc/dec/frac

### Computing with percents topics

- Estimating percents
- Find 50,100,200% of a number
- Find % of numbers related to 100
- What is N% of B?
- A is what percent of B?
- A is N% of what number?
- Combo of % computation topics

## Math Strategies

### Mul/Div strategies topics

- Multiplying by 4
- Dividing by 4
- Multiplying by 5
- Multiplying by 11
- Multiplying by 21
- Multiplying by 25
- Dividing by 25

### Wild strategies topics

- Same 10's digits but 1's digits add to 10
- Same 1's digits but 10's digits add to 10
- Numbers differing by 2: level 1
- Numbers differing by 2: level 2
- Numbers differing by 2, 4, 6

## Estimation

### Adding multiple numbers topics

- Add multiple numbers: level 1
- Add multiple numbers: level 2

### Estimating with fractions topics

- $\frac{1}{2}$  of a number
- $\frac{1}{3}$  of a number
- $\frac{1}{4}$  of a number
- $\frac{1}{5}$  of a number
- Combination: level 1
- Combination: level 2
- Numerators greater than 1

### Estimating with decimals topics

- Finding a decimal: level 1
- Finding a decimal: level 2
- Finding a decimal: level 3

### Estimating with percents topics

- 50% of a number
- 33% of a number
- 25% of a number
- 20% of a number
- Estimating a percent: combo. level 1
- Estimating a percent: combo. level 2

### **Special percent topics**

- Changing a # by a %: level 1
- Changing a # by a %: level 2
- Changing a # by a %: level 3
- Estimating the percent increase

### **Estimating with money topics**

- Round to nearest dollar
- Estimate total cost: level 1
- Estimate total cost: level 2
- Estimating savings at sales

## **Integers**

### **Integer Introduction**

- Integers: comparing sizes
- Integers: signs only <add/sub
- Integers: signs only <mul/div
- Integers: signs only  
<add/sub/mul/div

### **Integer computing topics**

- Integers: adding
- Integers: subtracting
- Integers: adding and subtracting
- Integers: multiplying
- Integers: dividing
- Integers: multiplying & dividing
- Integers: add / sub / mul / div

## **Equations**

### **Equation Introductions**

- Evaluating with integers
- Simplifying number phrases