

Math: Measurement & Data: Solve Problems Involving Measurement & Conversion

Students: DesCartes Statements:

- | | |
|------------------|--|
| Students: | RIT 241-250: <ul style="list-style-type: none">• Solves multiple-step problems involving proportions• Solves problems involving weight in the customary system and converts to larger or smaller units• Solves problems involving capacity in the metric system and converts to larger or smaller units |
|------------------|--|

- | | |
|------------------|---|
| Students: | RIT 231-240: <ul style="list-style-type: none">• Solves multiple-step problems involving proportions• Computes basic subtraction and multiplication with units of length• Converts between millimeters, centimeters, meters, and kilometers• Solves problems involving length in the customary system and converts to larger or smaller units• Converts between grams and kilograms• Solves problems involving weight in the customary system and converts to larger or smaller units• Converts within the metric system• Solves problems comparing unit prices |
|------------------|---|

- | | |
|------------------|---|
| Students: | RIT 221-230: <ul style="list-style-type: none">• Computes with dollars and cents over \$5.00 and converts to decimals (multiplication/division)• Computes the value of multiple bills and coins (multiplication/division)• Solves 1-step problems involving proportions• Knows the approximate size of a meter• Converts between inches, feet, and yards• Computes basic subtraction and multiplication with units of length• Converts between millimeters, centimeters, meters, and kilometers• Apply dimensional analysis to simple real-world problems (length)• Solves problems involving length in the customary system and converts to larger or smaller units• Converts between ounces and pounds• Converts between cups, pints, quarts, and gallons• Converts within the metric system• Computes 2-step conversions between units of time• Applies dimensional analysis to simple real-world problems (time)• Solves difficult problems involving elapsed time, with the conversion of hours• Solves complex problems involving miles/kilometers per hour |
|------------------|---|

- | | |
|------------------|---|
| Students: | RIT 211-220: <ul style="list-style-type: none">• Computes the value of multiple bills and coins (addition/subtraction only)• Analyzes and computes 1 operation on real-world problems involving money over \$5.00 (addition/subtraction only)• Analyzes and computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division)• Computes with dollars and cents over \$5.00 and converts to decimals (multiplication/division)• Computes addition and subtraction on multiple-step real-world problems involving money• Computes addition, subtraction, multiplication, and division on multiple-step, real-world problems involving money• Solves 1-step problems involving proportions• Knows the approximate size of a kilometer• Measures length to the nearest quarter of an inch• Converts between inches and feet• Converts between inches, feet, and yards• Solves simple problems involving measurement of length• Apply dimensional analysis to simple real-world problems (length)• Selects and uses the appropriate type and size of unit in metric system (mass)• Solves simple problems involving measurement of weight• Knows the approximate size of a gallon• Converts between cups, pints, quarts, and gallons• Apply dimensional analysis to simple real-world problems (capacity)• Applies dimensional analysis to simple real-world problems (time)• Solves difficult problems involving elapsed time, with the conversion of hours• Solves simple problems involving miles per gallon |
|------------------|---|

Students:**RIT 201-210:**

- Computes the value of multiple bills and coins (addition/subtraction only)
- Computes with dollars and cents up to and including \$5.00 and converts to decimals (multiplication/division)
- Computes addition and subtraction on multiple-step real-world problems involving money
- Computes money problems with multiple operations (addition/subtraction only)
- Computes addition, subtraction, multiplication, and division on multiple-step, real-world problems involving money
- Knows the approximate size of a centimeter
- Converts between inches and feet
- Solves simple problems involving measurement of length
- Knows the approximate size of a pound
- Knows the approximate size of a gram
- Converts between milligrams and grams
- Converts between cups and pints
- Converts between cups, pints, and quarts
- Computes simple conversions among units of time (hours, days)
- Computes more difficult conversions among units of time
- Applies dimensional analysis to simple real-world problems (time)
- Solves simple problems involving elapsed time, with the conversion of hours
- Solves simple problems involving miles per gallon
- Solves simple problems involving miles/kilometers per hour

Students:**RIT 191-200:**

- Identifies the value of a collection of coins to \$1.00 (without picture of coins)
- Adds money with regrouping
- Identifies the value of a collection of coins and bills to \$10.00 by "counting on" (without picture of money)
- Finds equivalent combinations of coins with the same value
- Makes change to \$1.00 by "counting on" or subtracting
- Computes with dollars and cents up to and including \$5.00 and converts to decimals (addition/subtraction only)
- Computes 1 operation on real-world problems involving money over \$5.00 (addition/subtraction only)
- Computes half price (multiplication/division)
- Computes with dollars and cents up to and including \$5.00 and converts to decimals (multiplication/division)
- Computes 1 operation on real-world problems involving money over \$5.00 (multiplication/division)
- Knows the approximate size of a foot
- Selects and uses the appropriate type and size of unit in customary system (capacity)
- Converts between cups and pints
- Converts between cups, pints, and quarts
- Identifies the correct time, given the words, and vice versa
- Determines elapsed clock time
- Tells time to the nearest quarter hour
- Determines elapsed time involving whole hours, whole days, whole years
- Tells time to the nearest 1 minute
- Computes simple conversions among units of time (minutes, hours)
- Computes simple conversions among units of time (hours, days)
- Solves simple problems involving elapsed time, with the conversion of hours
- Solves simple problems involving miles/kilometers per hour

Students:**RIT 181-190:**

- Identifies the value of a collection of coins to \$1.00 (without picture of coins)
- Adds money with regrouping
- Identifies the value of a collection of coins and bills to \$10.00 by "counting on" (with picture of money)
- Finds equivalent combinations of coins with the same value
- Combines a collection of coins and identifies the correct notation
- Makes change to \$1.00 by "counting on" or subtracting
- Computes with dollars and cents up to and including \$5.00 and converts to decimals (addition/subtraction only)
- Computes 1 operation on addition or subtraction real-world problems involving money up to \$5.00
- Knows the approximate size of an inch
- Knows the approximate length of familiar objects
- Measures length with customary measures to the half-inch mark

- Determines more capacity or less capacity
- Selects and uses the appropriate type and size of unit in customary system (capacity)
- Identifies the correct time, given the words, and vice versa
- Determines elapsed clock time
- Determines elapsed time under 1 hour or to the hour
- Determines elapsed time involving whole hours, whole days, whole years
- Tells time to the nearest 5 minutes
- Computes simple conversions among units of time (days, weeks)

Students:

RIT 171-180:

- Adds money vertically with no regrouping
- Identifies the value of a collection of coins to \$1.00 (with pictures of coins)
- Identifies the value of a collection of coins and bills to \$10.00 by "counting on" (with picture of money)
- Estimates and measures length of an object to the nearest centimeter using a picture of a ruler
- Measures length with customary measures to the inch mark
- Tells time to the nearest hour
- Tells time to the nearest half hour
- Tells time to the nearest 5 minutes
- Computes simple conversions among units of time (minutes in an hour, half hour, quarter hour)

Students:

RIT Below 171:

- Adds money vertically with no regrouping
- Compares objects (shorter, longer)
- Estimates and measures length of an object to the nearest inch using a picture of a ruler
- Measures length with customary measures to the inch mark
- Tells time to the nearest hour
- Tells time to the nearest half hour