

Common Core Cheat Sheet

7th Grade Math

Vocabulary

Word	Definition
Proportional To	Measures of one type of quantity are <i>proportional to</i> measures of a second type of quantity if there is a number $k > 0$ so that for every measure x of a quantity of the first type the corresponding measure y of a quantity of the second type is given by kx , i.e., $y = kx$.
Proportional Relationship	A one-to-one matching between two types of quantities such that the measures of quantities of the first type are proportional to the measures of quantities of the second type.
Constant of Proportionality	If a proportional relationship is described by the set of ordered pairs that satisfies the equation $y = kx$, where k is a positive constant, then k is called the <i>constant of proportionality</i> ; e.g., If the ratio of y to x is 2 to 3, then the constant of proportionality is $2/3$ and $y = 2/3 x$.
One-to- One Correspondence	Two figures in the plane, S and S' , are said to be in one-to-one correspondence if there is a pairing between the points in S and S' , so that, each point P of S is paired with one and only one point P' in S' and likewise, each point Q' in S' is paired with one and only one point Q in S .
Scale Drawing and Scale Factor	For two figures in the plane, S and S' , S' is said to be a <i>scale drawing</i> of S with <i>scale factor</i> r if there exists a one-to-one correspondence between S and S' so that, under the pairing of this one-to-one correspondence, the distance $ PQ $ between any two points P and Q of S is related to the distance $ P'Q' $ between corresponding points P and Q of S by $ P'Q' = r PQ $.
Additive Identity	The additive identity is 0.)
Additive Inverse	The additive inverse of a real number is the opposite of that number on the real number line. For example, the opposite of -3 is 3. A number and its additive inverse have a sum of 0.
Break-Even Point	The point at which there is neither a profit nor loss.
Distance Formula	If p and q are rational numbers on a number line, then the distance between p and q is $ p - q $.
Loss	A decrease in amount; as when the money earned is less than the money spent.
Multiplicative Identity	The multiplicative identity is 1.
Profit	A gain; as in the positive amount represented by the difference between the money earned and spent
Repeating Decimal	The decimal form of a rational number. For example, $\frac{1}{3} = 0.\overline{3}$.
Terminating Decimal	A decimal is called terminating if its repeating digit is 0.

Strategies/Models

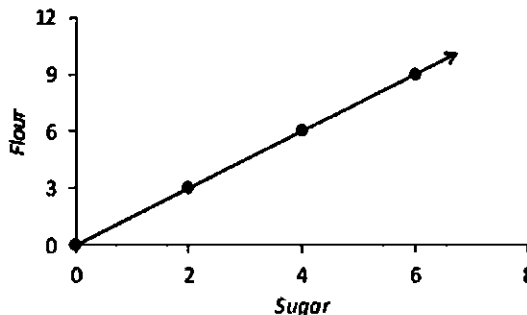
Ratio Table: for use in modeling a proportional relationship (i.e., 2 cups of sugar for every 3 cups of flour.)

Ratio Table

Sugar	Flour
2	3
4	6
6	9

Coordinate Plane: for use in modeling a proportional relationship

Coordinate Plane



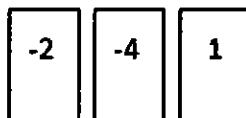
Equations

$$3 + (-5) = -2$$

Expressions

$$3 + (-5)$$

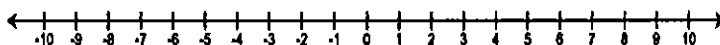
Integer Game: used to model operations with integers



The cards -2, -4, and 1 total -5.

Number Line: used in modeling operations with rational numbers

- Vertical
- Horizontal



Tape Diagram: used in modeling proportional relationships

Tape Diagram

