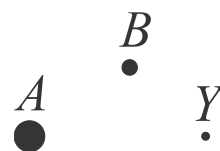


1. Jane and Mary are planting flowers. Jane can plant all flowers in 2 hours, Mary can do it in 3 hours. How many hours they need to plant all flowers together?
2. A swimming pool can be filled with one pipe in 10 hours. Full pool can be drain out with another pipe in 20 hours. How long it will take to fill up the pool with opened drain pipe?
3. Jane and Mary are doing fall clean up in a backyard. Mary can do the job in 6 hours; together they can do it in 4 hours. How many hours does Jane need to clean up the backyard?
4. 5 hamsters will eat 5 bags of hamster food in 5 days. How many days 10 hamsters need to eat 10 bags of food?
5. Simplify the following expressions:
 - a. $3 \cdot 3^4(-3)^2$;
 - b. $2^5 \cdot 2(-2^2)c^{4-1}c^3$;
 - c. $5^3 \cdot 5(-5^5)5^3 \cdot 5$;
 - d. $2 \cdot 3^2 \cdot 5^3 \cdot (-4 \cdot 3 \cdot 5^2)$;
 - e. $0.5a(-b)^6 \cdot 10a^2b^2$;
 - f. $\frac{1}{6}(-5)^35 \cdot 3 \cdot (-6 \cdot 5 \cdot 3^3)$;
 - g. $2^4 + 2^4$;
 - h. $2^m + 2^m$;
 - i. $2^m \cdot 2^m$;
 - j. $3^2 + 3^2 + 3^2$;
 - k. $3^k + 3^k + 3^k$;
 - l. $3^k \cdot 3^k \cdot 3^k$;

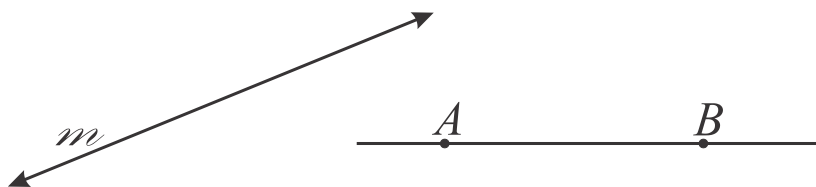
Point (an undefined term).

In geometry, a point has no dimension (actual size), point is an exact location in space. Although we represent a point with a dot, the point has no length, width, or thickness. Our dot can be very tiny or very large and it still represents a point. A point is usually named with a capital letter.



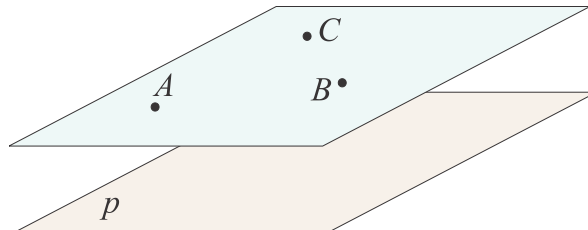
Line (an undefined term).

In geometry, a line has no thickness but its length extends in one dimension and goes on forever in both directions. Unless otherwise stated a line is drawn as a straight line with two arrowheads indicating that the line extends without end in both directions (or without them). A line is named by a single lowercase letter, m for example, or by any two points on the line, $\overleftrightarrow{AB}$ or AB .



Plane (an undefined term).

In geometry, a plane has no thickness but extends indefinitely in all directions. Planes are usually represented by a shape that looks like a parallelogram. Even though the diagram of a plane has edges, you must remember that the plane has no boundaries. A plane is named by a single letter (plane p) or by three non-collinear points (plane ABC).



A line segment is a part of a straight line between two chosen points.
(A set of points of a straight line between two points.)
These points are called endpoints.

A ray is a part of a straight line consisting of a point (endpoint) and all points of a straight line at one side of an endpoint. Ray is named by endpoint and any other point, ray $\overrightarrow{AB}$ or AB (where A is an endpoint)