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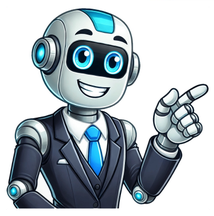

Studying a topo map of a familiar area is a great way to learn how to match terrain features with the contour lines on a map. Index contour lines: Every fifth contour line is a thicker, “index” line. At some point along that line, its exact elevation is listed. You find the contour interval for your map in its legend. Contour Interval A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. What Is Contour Interval? A contour line of a function of two variables is a curve along which the function has a constant value, so that the curve joins points of equal value. It is a plane section of the three-dimensional graph of the function f parallel to the-plane. Contour Lines Contour lines are lines drawn on a map connecting points of equal elevation, meaning if you physically followed a contour line, elevation would remain constant. Contour lines show elevation and the shape of the terrain. They’re useful because they illustrate the shape of the land surface-its topography. Moreover, topographical surveyors in Edmond know how to do it. Contour Interval on Topographic Map A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is a vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. Sharp contour points indicate pointed ridges. What is the Contour Interval of the Map? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is a vertical distance or difference in elevation between contour lines. Contour Lines and Contour Intervals A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. Contour Index Index contours are bold or thicker lines that appear at every fifth contour line. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. If the numbers associated with the contour lines are decreasing, there is a decrease in elevation. Uses of Contour Intervals in Surveying A higher contour interval is used for a large area and small contour interval for small area. In a large map, index contour lines are less to keep it simple to read the map easily. In this case, to find out the intermediate points elevation, contour intervals are used. What Is the Contour Interval Equal To? Divide the difference in elevation between the index lines by the number of contour lines from one index line to the next. In the example above, the distance 200 is divided by the number of lines, 5. The contour interval is equal to 200 / 5 = 40, or 40-unit contour intervals. Contour Lines in Surveying In the most basic terms, a contour survey illustrates the elevation differences across your land, in regular intervals, from the lowest point to the highest point. Contour lines join points at the same elevation. The closer together the contour lines are, the steeper the section. What Is the Purpose of Contour Interval? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. What Is the Difference Between Contour Interval and Scale? Scale and Contour Interval. Contour Interval: The contour interval on a topographic map is the vertical distance between one contour line and the next. The scale of a WWI military map is usually conveyed by a representative fraction, graphic line or both. What Is a Contour Index? Index contours are bold or thicker lines that appear at every fifth contour line. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. What Is the Factors Affecting Contour Interval? The Scale of The Map: The contour interval is inversely proportional to the scale of the map. If the scale is small, the contour interval should be large and vice versa. Nature of The Ground: The general terrain of the area determines the contour interval. For a flat area, the contour interval should be small. For sloping or undulating terrain, the chosen contour interval should be large Purpose and Expansion of the survey work: If surveying work is to be used for precise and detailed calculations, then the small contour interval should be chosen and a large contour interval is chosen for the following cases: For catchment areas, To the reservoir, For location survey. Time available and Eligible Expenses for field and office work: A large contour interval should be used if the time available for survey work is less. The small contour interval, survey work, and plotting need to be more precise. For a small contour interval, the money needed will also be more as the field and office work will be larger. What Are 3 Types of Contour Lines? There are 3 kinds of contour lines you’ll see on a map: intermediate, index, and supplementary. Index lines are the thickest contour lines and are usually labeled with a number at one point along the line. This tells you the elevation above sea level. Intermediate lines are the thinner, more common, lines between the index lines. They usually don’t have a number label. Typically one index line occurs for every five intermediate lines. Supplementary lines appear as dotted lines, indicating flatter terrain. Why Are Contour Lines Used? The purpose of contour lines is to represent the tridimensional shape of the terrestrial surface on a bidimensional map. Contour lines are the intersection of an horizontal plane parallel to the reference level and the topographical surface to describe. Consequently: Contour lines are always closed curves. How Do Contour Lines Work? The feature that makes this possible is contour lines: Contour lines indicate the steepness of terrain. Contour lines connect points that share the same elevation: Where they’re close together (they never intersect), elevation is changing rapidly in short distance and the terrain is steep. What Shape Are the Contour Lines? At a stream junction, contour lines form a “M” or “W” shape. This can be interpreted as two “V-shaped contours intersecting. What Is Contour Interval on a Topographic Map? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. How Do You Read Contour Intervals on a Topographic Map? Index lines are the thickest contour lines and are usually labeled with a number at one point along the line. This tells you the elevation above sea level. Intermediate lines are the thinner, more common, lines between the index lines. They usually don’t have a number label. Typically one index line occurs for every five intermediate lines. Supplementary lines appear as dotted lines, indicating flatter terrain. If you’re looking at an index line, it’s easy to read the elevation because it is clearly labeled. However, interval lines are somewhat trickier. To determine their elevation, you’ll need to know the contour intervals. What Is a Contour Interval Example? A topographical map of an area near Denver might have index contours of 5,000′, 5,100′ and so on with a contour interval of 20 feet. This means that there would be five “spaces,” and four non-index contour lines, between each index contour. Often, index points are given along with index contours. How Much Is the Contour Interval on a Topo Sheet? The elevation difference or vertical distance between two adjacent contour lines would be 20 meters (100 : 5 = 20). Therefore the contour interval is 20 meters. How Do You Find the Contour Interval on a Map? Contour intervals tell you the change in elevation between any two contour lines. You can find the contour interval in the map key, usually located underneath the scale of the map at the bottom center. What Are the 5 Rules of Contour Lines? Rule 1 – every point of a contour line has the same elevation. Rule 2 – contour lines separate uphill from downhill. Rule 3 – contour lines do not touch or cross each other except at a cliff. Rule 4 – every 5th contour line is darker in color. This is an INDEX contour line. Rule 5 – Contour lines are closer together in steep terrain and farther apart in flat areas. Where Is the Contour Interval on a Map? Contour intervals tell you the change in elevation between any two contour lines. You can find the contour interval in the map key, usually located underneath the scale of the map at the bottom center. How Do You Find the Index Contour? Find the Index Contour. Before you ever start analyzing contours, you should determine the contour interval which is found in the bottom center of the map. To determine the elevation of a point, you must have a reference line from which to start. This reference line is an index contour. What Color Is an Index Contour Line? To make topographic maps easier to read, every fifth contour line is an index contour. Because it’s impractical to mark the elevation of every contour line on the map, the index contour lines are the only ones labeled. The index contours are a darker or wider brown line in comparison to the regular contour lines. Why Is an Index Contour Important? Index contours help the map reader get a better feel for the topography of an area. Every 100 ms above sea level, the contour is a darker, thicker brown and is also labelled with the elevation, while the others are lighter, thinner and have no label. What Are Index Contour Lines on a Topographic Map? Index contours are bold or thicker lines that appear at every fifth contour line. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. If the numbers associated with the contour lines are decreasing, there is a decrease in elevation. What Is the Contour Interval on the Map? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. What Is Meant by the Term Contour Interval? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. What Are the Uses of Contour in Surveying? It depicture slope and size of different landforms on map. It provides a complete and clear image of the land and the surrounding area. By reading contour intervals it is easy to sort out the different elevations of the landscape. It provides the basis for coloring method. What Does a Contour Interval Do? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. What Is the Contour Interval Used on This Map? A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. Why Are Contour Lines Useful? Contour lines are useful because they allow us to show the shape of the land surface (topography) on a map. The two diagrams below illustrate the same island. The diagram on the left is a view from the side (cross profile view)such as you would see from a ship offshore. What Is an Important Part of a Topographic Map? Topographic maps give the user the ability to view a three-dimensional landscape on a two-dimensional map. One who is able to read a topo map can identify the elevation and location of valleys, peaks, ridges, and other land features. What Are Four Main Uses of Topographic Maps? Topographic maps have multiple uses in the present day: any type of geographic planning or large-scale architecture; earth sciences and many other geographic disciplines; mining and other earth-based endeavours (such as planning and constructing ponds); and recreational uses such as hiking or, in particular, orienteering, which uses highly detailed maps in its standard requirements. What Is the Shape of Contour Lines? Instead, contours form closed loops. These loops follow the shape of the land, and may extend past the edge of the map. Closely spaced contours indicate a steep slope, whereas contours that are spaced far apart indicate a gentle slope or almost flat surface. How Do You Find the Height of a Contour Line? Put simply, contour lines mark points of equal elevation on a map. If you trace the length of a line with your finger, each point you touch is the same height above sea level. If you were to walk the path of a contour line in real life, you would remain at the same elevation the whole hike, never traveling up or down. How Do You Measure the Height of Land on a Map? On the map, hover over a spot and click a starting point for your measurement. Then, hover over another spot and click an end point. The measurement will show up in the “Ruler” window. What Is Contour Interval? A contour interval may be a perpendicular distance or dissimilarity in altitude between two adjacent contour lines in a topographic map. Contour Interval on Topographic Map Index contours are prominent or dense lines that bob up at every 5th isometric line. Generally, there are totally distinct contour intervals for various maps. For a relief map the contour interval is frequently persistent. For the plotting of region, the contour intervals are presumed. In each plot, the contour intervals are designated on the right-hand side. If the numbers correlated with definite contour lines are surging, the altitude of the terrain is additionally surging. Contour Lines A contour is a fictitious line on the bottom attaching the dots having equivalent altitude or a line joining the points of the identical altitude is recognized as an isometric line. A map or plan representing a 3-dimensional picture of the bottom with the assistance of the contour is termed a map or plan. If you physically followed an isometric line, altitude would persist incessantly. Contour lines display altitude & additionally the structure of the terrain. Sharp contour points indicate tapered ridges. How to Find the Contour Interval? A relief map consists of contour lines of a given geographical area. To sustain the map effortlessly, every isometric line isn’t blotted by its altitude studying. These marked lines are designated as index contour lines. The evaluation of the contour intervals is as given beneath: First, find the 2 index contour lines which might be labeled with a specific loftiness. Evaluate the dissimilarity between the 2 selected index contour lines from a map. To take the difference, deduct the upper altitude line with the lower altitude line. Now compute the amount of non-index lines contour lines between the 2 indexed contour lines selected for the contour interval computed within the 1st step. The range of lines achieved within the above procedure is taken & added with unity. For instance: if the range of rows between 2 index lines is 5, then add 1 to 5 which turns into 6. The ultimate step is that the quotient of the difference between the index lines (step 2) & therefore the type of lines between the 2 index lines added with unity 1 (step 5). The ultimate solution is attained by dividing the contour intervals of the actual topographic map. An Instance of Contour Interval Calculation Consider, 7000 & 7100; calculate the interval between them. Difference between 7100 & 7000 is 7100 – 7000 = 100 Variety of contour lines is 4 between 7000 & 7100. Add 1 to 4, 4 + 1 = 5 Now divide 100 by 5, 100/5 = 20 units Uses of Contour Intervals in Surveying It is employed when an enormous space is to be mapped to a bijou piece of paper. A loftier contour interval is employed for an even colossal area & miniature contour intervals for a bijou area. In a much sizeable map, index contour lines are much less to keep up the map effortless to learn; during this case, to search out the loftiness of the intermediate point, the contour interval is employed. Earthquake approximation for bridge, dam or road will be found with the assistance of contour intervals within the map. Reading Contour Lines The contour lines show a form of the world. One contour blotches an identical altitude line, which implies that if the isometric line measures an altitude of 1,000 feet above average water level, all points along that line are 1,000 feet above average water level. The contour lines never intersect, as one point on the map cannot have two distinct altitudes at an identical time. The remoter the contour lines pop up on the map, the polished the slant of the world is. The nearer the contour lines pop up, the further inclined the terrain are going to be. Where the contour lines get very nearer & almost precipice occurs, the relief may be a perpendicular cliff, the contour lines almost move & may look as if they have coalesced. Pending cliffs can have one line crossing over another with one line appearing as dotted. There are 3 varieties of contour lines you’ll see on a map: intermediate, index, and supplementary. Index lines are the chunkiest contour lines & are generally blotted with numbers at one point along the line. This signifies the elevation above water level. Intermediate lines are the slender, more ordinary, lines between the index lines. They conventionally haven’t got a variety of labels. Generally 1 index line arises for each 5 intermediate lines. Supplementary lines pop up as dotted lines, designating leveled terrain. What Is Importance of Topographic Maps? Topographic maps are an immensely vital tool because they’ll represent the 3-dimensional landscape in 2 dimensions. Anyone who can interpret a map from above can discover the position of peaks, valleys, mountain intervals, & saddles, among other land features. Topographic maps may additionally express whether you’re traveling up or down a particular road or trail. A topographic map series utilizes a conventional identification that features the range of cartographic symbols employed, in addition as a customary geodetic framework that defines the projection, organization, ellipsoid & geodetic datum. Official topographic maps additionally embrace a national grid referencing system. Land Features: The structure of the contour lines can denote the form of the landforms in a specific region. For instance, concentric circles denote a zenith, with the tiniest circle blotting the summit. USGS Maps: Today, the USGS has generated quite 54,000 maps, which form the premise of most commercially attainable topographic maps today. The maps also show power lines, rivers, glaciers, & mines. Orienting the Map: To combine a topographic map with the encompassing landscape, which can allow you to spot features like mountains and rivers, it’s vital to make sure that the map is aligned flawlessly. What Is Contour Interval on this Map? Contour lines are critical to realizing the elevation profile of your terrain or a specific land formation. This information is frequently obliging when selecting a hiking route… or lifesaving in an extraordinarily desperate survival condition. Beyond backpacking & hiking, innumerable other livelihoods utilize them – land surveyors, foresters, engineers, miners, geologists, hunters, to call some. Topography is that the study of geographical characteristic features on a landscape. A map with contour lines thereon is named a topographic map. Topographic maps utilize a blend of tints, shading & contour lines to represent changes in elevation & terrain shape. Essentially, topographic maps represent the 3-dimensional panorama of Earth within the 2-dimensional gap of a map. Understanding Line Formations Peak Ring: The innermost disc at the middle of diverse contour loops nearly always represents a loft. Depression Ring: Occasionally, however, an intramural ring denotes a depression (lowest elevation), in which the map will pop up with a sequence of bijou tick marks pointing towards the middle (called hachures). Cliff: If you see two or more lines coincide until they appear as one line, this represents a cliff. Beware, however – some cliffs might not pop up on the map. Valley: When contour lines intersect a valley or a stream, they generate a tapered V or U-shape. Rivers, of course, are denoted by blue lines which will run through the middle of the V-shape. Ridgeline: Consider a ridgeline like a lengthened loft, not coming to a fine point. Rather than a closed camp, a ridgeline can pop up as if a brobdingnagian ellipse. Saddle: A saddle may be a shallow area between two loftier points of elevation. They seem as hourglass shapes between 2 concentric circles. Ledge: Ledges or flat areas on the side of a mountain pop up as bulging U-shapes that time far from the loft. What Is the Contour Interval on This Map? A 25 feet B 10 feet C 50 feet D 100 feet Here, Contour interval is that the vertical distance between the 2 contour lines which are next to every other.In the given figure contour interval is 50 feet. It’s determined as follows: Let’s take an instance of 2 contour lines which are labeled. Point D is blotted at 10,000 lofts & additionally the next label is blotched as 10500 lofts. 10500-10000 = 500 feet Between these 2 contour lines, if we count, there are 10 counter lines. 500/10 = 50 i.e. each counter line has 50 feet distinction. We can cross-examine it as follows. 50 x 10 (as there are 10 contour lines between 10.500 labelled & 10000 labelled points) = 500 feet. [box title=”FAQ” style=”default” box_color=”#f2f2f2f2″ title_color=”#4c64c9″ radius=”3″] Contour Interval Definition A contour line of a function of two variables is a curve along which the function has a constant value, so that the curve joins points of equal value. It is a plane section of the three-dimensional graph of the function f parallel to the-plane. Contour Interval on Topographic Map A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is a vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. Contour Lines Contour lines are lines drawn on a map connecting points of equal elevation, meaning if you physically followed a contour line, elevation would remain constant. Contour lines show elevation and the shape of the terrain. They’re useful because they illustrate the shape of the land surface its topography on the map. What Is Contour Interval? A contour interval is a vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. How to Find the Contour Interval? Divide the difference in elevation between the index lines by the number of contour lines from one index line to the next. In the example above, the distance 200 is divided by the number of lines, 5. The contour interval is equal to 200 / 5 = 40, or 40-unit contour intervals. Uses of Contour Intervals in Surveying. As contour intervals are for the calculation of vertical elevation of an area, same way to calculate the horizontal distance it is termed as Horizontal Equivalent. The horizontal distance between two points on two consecutive contour lines for a given slope is known as horizontal equivalent. Reading Contour Lines Index lines are the thickest contour lines and are usually labeled with a number at one point along the line. Intermediate lines are the thinner, more common, lines between the index lines. Supplementary lines appear as dotted lines, indicating flatter terrain. Contour Interval Example. Divide the difference in elevation between the index lines by the number of contour lines from one index line to the next. In the example above, the distance 200 is divided by the number of lines, 5. The contour interval is equal to 200 / 5 = 40, or 40-unit contour intervals. What Is the Importance of Topographic Maps? Topographic maps are important because they accurately represent the terrain of an area. That means that they many different industries use them to understand the area they are working. What Is the Contour Interval on This Map? A contour interval is a vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. A contour interval in the survey is the vertical distance or the difference in elevation between the two contour lines on a topographic map. How to Determine Contour Interval? Divide the difference in elevation between the index lines by the number of contour lines from one index line to the next. In the example above, the distance 200 is divided by the number of lines, 5. The contour interval is equal to 200 / 5 = 40, or 40-unit contour intervals. How to Find a Contour Interval? Divide the difference in elevation between the index lines by the number of contour lines from one index line to the next. In the example above, the distance 200 is divided by the number of lines, 5. The contour interval is equal to 200 / 5 = 40, or 40-unit contour intervals. Index Contour Interval A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line. If the numbers associated with specific contour lines are increasing, the elevation of the terrain is also increasing. [/box] Originally posted 2021-03-29 15:06:10. Join TheConstructor to ask questions, answer questions, write articles, and connect with other people. When you join you get additional benefits. Have an account? Sign In The contour interval is an important factor in determining the accuracy and level of detail of a topographical map. A smaller contour interval provides more detailed information about the terrain, including small changes in elevation and land features, while a larger contour interval provides a general overview of the terrain with less detail. In addition to providing information about the terrain, contour lines can also be used to determine the slope of a surface, the location of a peak or a valley, and the direction of water flow. They are commonly used by hikers, mountaineers, and other outdoor enthusiasts to navigate and plan their routes, as well as by geologists, engineers, and land-use planners to make decisions about land use and development. Contour interval is an important concept in cartography, geography, and topography. It refers to the vertical distance or difference in elevation between two successive contour lines on a map or a topographic profile. Contour lines are imaginary lines on a map that connect points of equal elevation and provide a two-dimensional representation of the three-dimensional terrain. Contour Intervals The contour interval is usually expressed in units of measurement such as feet, meters, or units of elevation relative to sea level. The contour interval is determined

by the scale of the map and the degree of relief of the terrain being represented. On large-scale maps with a lot of topographical detail, the contour interval is usually smaller, while on small-scale maps with less detail, the contour interval is larger. In conclusion, the contour interval is an essential aspect of topographical maps and an important tool for understanding the terrain and making decisions about land use and development. Read More: Total Station Survey Equipment | Method & Uses Topographic Map Contour Lines A map legend usually specifies the contour interval on the map, but sometimes just a portion of a map is available. Understanding how to compute the interval becomes a valuable skill. On most of the maps, each fifth contour line, indicated as a heavier or darker line, is an index line or index contour. These index lines will be noted with their elevation. Discover the elevations of two adjacent index lines. The biggest number indicates the uphill rise. Locate the difference between the two elevations. A contour map contains contour lines of a given geographical region. To maintain the contour map easy and understandable to read, not every contour line is marked with its elevation reading. These marked or tagged lines are remembered or termed index contour Lines. In the above picture, the dark lines with reading are index contour lines. The computation of the contour intervals is as below, Step 1:-First of all, locate two index contour lines that are named with a particular elevation. Step 2:-Now compute the difference between the two selected index contour lines established from a map. To obtain the difference, subtract the higher elevated line from the lower elevated line reading. Step 3:-Directly count the number of non-index line contour lines between the two index contour lines specified for the contour interval computing in the 1st step. Step 4:-The number of lines acquired in the above step is obtained and added with 1. For Example: If the number of lines between two index lines is 5. Then add 1 to 5 which becomes 6. Step 5:-The last step is the quotient of the difference between two index lines (step 2) and the number of lines between two index lines plus 1 (step 5). Step 6:-The last answer we get after dividing is the contour interval of the particular topographical map. Read More: Contour Line Example The calculation of the contour interval, Considering the above map for the calculation of intervals, the steps involved in contour interval computation. Let’s assume two index contour lines, 7000 and 7100, and compute the interval between them. The difference between the two selected index contour lines 7100 and 7000 is 7100 – 7000 = 100 Now count the number of non-index lines contour lines between 7000 and 7100 as 4. The number of lines acquired in the above step is 4 and added with 1. Adding, 4 + 1 = 5 Now divide 100 by 5, 100/5 = 20 units The uses of contour interval in surveying are as follows, Interval is utilized when a large space is to be mapped to a small piece of paper. A higher interval is utilized for a larger area and smaller intervals for a smaller area. In a larger map, index contour lines are much less to maintain the map and are simple to learn. To find the height of the intermediate point, the interval is utilized. Earthquake estimation for the dam, bridge, or road can be found with the help of contour intervals within the map. As intervals are for the computation of the vertical elevation of an area, a similar way to compute the horizontal distance is termed Horizontal Equivalent. The horizontal distance between two points on two consecutive contour lines for a provided slope is known as the horizontal equivalent. The Contour Lines indicate the shape of the earth. A single contour line denotes an equal elevation line, which indicates that if the contour line computes an elevation of 1000 feet above average sea level, every point along that line is 1000 feet above average sea level. The contour lines never cross, as a point on the map cannot possess two different heights at a similar time. The farther the contour lines arrive on the map, the smoother the slope of the earth is. The near the contour lines arrive, the additional inclined the terrain will be. Reading the contour lines Where the contour lines get extremely close, an almost precipice happens. If the relief is a vertical cliff, the contour lines nearly come together and can glance as if they are merging. Pending cliffs can have one line crossing over the additional (this is the just time those lines can cross), with the one line appearing as dotted. Be familiar, however, that smaller cliffs can happen between the contour lines, even in areas with smooth slopes. A cliff 15 feet elevated, for instance, along a flow channel or due to slight faults, would not certainly indicate whether that cliff lies between two contour lines, particularly if they have a higher contour gap. Read More: What Is Surveying? 23 Different Types of Surveying Equipment There are 3 types of contour lines detected on a map, Index Contour Line Intermediate Contour Line Supplementary Contour Line Index Contour Lines Occasionally a map may have many contour lines such that it becomes tough for the cartographer to tag the elevations of each contour line. Therefore, to create the map simpler to read and less cumbersome, every fifth (5th) contour line from the mean sea level is usually named after its elevation and sometimes bolded a little bit larger than the rest. These bolded and named contour lines are usually related to the index contour lines. Intermediate Contour Lines The remaining contours are named intermediate contours. These normally fall in between the index contour lines. The Intermediate contour lines are finer than index contours and do not have their elevations named on them. There are mainly four intermediate contour lines between any two successive index contour lines. Supplementary Contour Lines In some special areas on a map, the typical interval is sometimes too wide to represent a considerable change in elevation, such as on-level terrain, and therefore, extra half-interval contours are added. These types of contours are named supplementary contours or form lines. They usually arrive on the map as dashed or thin continuous lines with no representative value of elevation on them. They are utilized when the overall elevation change is extremely gradual. When supplementary contours arrive on the map, the interval utilized for them is usually specified in the interval note. Read More: Compass Surveying | Compass Survey | 3 Types of Compass In Surveying | Principle of Compass Surveying Topographic maps are a significant tool because they can represent the three-dimensional landscape in two dimensions. A person who can look over a map from the top can discover the location of saddles, valleys, mountain intervals, and peaks, among different land features. Topographic maps can also indicate whether you are traveling up or down a particular road or trail. Elevations on an upper map are notable with contour lines, which attach comparable elevation points. Imagine stepping around a mountain in a circle, never going up and down the hill, but staying at a similar altitude. If you pursued the path, you would have a contour line on a map. The contour lines are generally separated by 40 vertical feet, but you should examine the map you are utilizing to be sure, and each fifth contour line is usually noted with an actual elevation. The shape of the contour lines can specify the shape of the landforms in a particular area. For instance, concentric circles indicate a peak, with the smallest circle denoting the summit. The contour lines next to each other specify that the land is extremely steep, while the scattered contour lines indicate that the land is relatively flat. The contour lines surrounding two peaks or two sets of concentric circles may specify the existence of a saddle or space between the peaks. Topographic maps across the country were generated by the US Geological Survey, which started surveying land to produce these maps in 1879. Today, the USGS has generated more than 54,000 maps, which form the basis of the highest commercially obtainable topographic maps today. USGS Topographic Maps also indicate details that you would watch on regular road maps, containing roads, dirt roads, cities, and structures. The maps also indicate power lines, rivers, glaciers, and mines. To combine a topographic map with the surrounding landscape, which will enable you to specify features such as mountains and rivers, it is significant to assure that the map is oriented correctly. You can rapidly orient the map utilizing a compass and the “compass rose” found on the map, which will include an arrow pointing north. Align the compass needle, which points north, with the arrow on the wind rose, rotating the map if important. The survey leader has to define the selection of the interval before the beginning of the mapping procedure based on ground factors as follows, The interval is retained inversely proportional to the scale of the map. Less the scale of the map, the larger the interval. On the other side, if the scale of the map is large, the interval should be small. If on a small-scale map, a small contour interval is obtained the horizontal distance between two consecutive contours. For example, the horizontal equivalent is also small and when planned on the scale of the map, the two contours might join together. It necessitates enhancing the interval on small-scale maps. Read More: Civil Engineering Project Ideas The interval on a map also relies on the objective for which the map is to be used. If the map is prepared for setting out a highway on hills slopes, a large interval might be enough. But, if the map is needed for the construction of a university campus, a small interval will be needed for proper work. The contour interval relies on the general topography of the terrain. In the flat ground, contours at small intervals are monitored to describe the general slope of the ground whereas high hills can simply be illustrated with contours at larger intervals. In other words, we may explain that the interval is inversely proportional to the flatness of the ground, for example, the steeper the terrain, the larger the interval. If the time available is limited, a greater interval is obtained to finish the project in a particular time. On the other hand, if adequate time is at the disposal, a smaller interval might be determined, keeping in view all the different factors already described. You May Also Like Join TheConstructor to ask questions, answer questions, write articles, and connect with other people. When you join you get additional benefits. Have an account? Sign In