What is a ray math

High Impact Tutoring Built By Math Experts Personalized standards-aligned one-on-one math tutoring for schools and districts Request a demo Here you will learn about ray math, including what rays are and how to identify them. Students will first learn about ray math as part of geometry in 4 th grade. A ray is part of a line that has one endpoint and extends on forever in the opposite direction. They can be shown on their own. For example, They can also be shown within a line. For example, When two rays share a common endpoint, they form an angle. For example, The vertex of the angle, in this case A, is the end point of the rays. The rays that form the angle are ray AX and ray AG. Other geometric figures, including polygons, contain rays. For example, Starting at the endpoint in the shape and extending forever in the opposite direction forms a ray. A ray is also used when graphing inequalities. For example, The ray on the line above represents the number 7 and everything greater. This can be written as x \geq 7. See also: Inequalities on a number line How does this relate to 4 th grade math? 4th Grade – Geometry (4.G.A.1)Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. In order to identify rays: Look for part of a line. Decide if there is only one endpoint. Use this quiz to check your grade 4 students' understanding of lines. 10+ questions with answers covering a range of 4th grade lines topics to identify areas of strength and support! DOWNLOAD FREE x Use this quiz to check your grade 4 students' understanding of lines. 10+ questions with answers covering a range of 4th grade lines topics to identify areas of strength and support! DOWNLOAD FREE Is the figure a ray? The figure is a line, with arrows pointing in each direction going on forever. 2Decide if there is only one endpoint. There are no endpoints shown. The figure is not a ray. Note: Parts of the line are made up of rays, but these parts are not shown in the figure above. Name a ray shown. The complete figure is a line, with arrows pointing in each direction going on forever. Decide if there is only one endpoint. The figure shows a line, with the points G and J. Any of these points can be endpoints of a ray. Let's look at all the possibilities. From point G going right forever: Notice, because the ray includes point J, this can also be called Ray GJ. From point G going left forever: From point J going right forever: From point J going left forever: Notice, because the ray includes point G, this can also be called Ray JG. How many rays are in the triangle? The sides of a triangle are made up of parts of lines called line segements. Decide if there is only one endpoint. There are 3 line segments but no rays. Name the rays that make up the angle. There are parts that fall on lines. Decide if there is only one endpoint. Q is an endpoint that connects with R and then goes on forever in the opposite direction. It is ray QR. Q is an endpoint that connects with K and then goes on forever in the opposite direction. It is ray QK. How many rays are in the geometric figure shown below? There are parts that fall on lines. Decide if there is only one endpoint. There is one endpoint that forms 3 different rays. How is a ray of light like a ray in math? A ray of light is straight, so it is part of a line. Decide if there is only one endpoint. A ray of light has one beginning point – a source of the light. This is like the endpoint of a ray in math. Worksheets are a good way to practice identifying rays, especially ones that include practice problems with angles. However, there are also opportunities for students to practice identifying and creating rays outside of worksheets. Look for and take advantage of these types of opportunities. Confusing lines and raysLines go on forever in opposite directions, whereas rays have a fixed starting point. Thinking there is not a ray because it is not markedThere are an infinite amount of rays in a line, even if they are not marked.For example,The figure below is a line. It is NOT a ray.However, it has many rays within it. By choosing a point and then continuing forever in the opposite direction, you can name a ray within the line. Line segment Parallel lines Perpendicular lines Based on the ray definition, this figure is part of a line and has one endpoint. Yes, because there are two endpoints. No, because there are two endpoints. Yes, because it is part of a line. No, because it is not part of a line. This figure has two clear endpoints. A ray only has one endpoint. Connecting points C and G does NOT form a ray. The side connected by the points is straight, which means it is part of a line. Starting from an endpoint and going forever in the opposite direction form a ray. This shape has exactly 2 rays. O is an endpoint that connects with E and then goes on forever in the opposite direction. It is ray OE. O is an endpoint that connects with W and then goes on forever in the opposite direction. It is ray OW. The point where the lines intersect is an endpoint. The light coming from the sun, sun rays, has a clear starting point and extends forward as part of a line. It represents a ray. Are there rays on a number line? If you choose a starting point (any number – including fractions and decimals) and continue forever in an opposite direction, it will form a ray. What are opposite rays? Opposite rays have the same endpoint but extend in opposite directions. Together they form a line. What are vectors? A vector is represented like a ray (with an endpoint and an arrow), but the arrow is only used to indicate direction. Vectors and rays are not the same. Vectors are introduced in high school. What can you do if you need math help? You can use websites, like this, that overview a topic and provide practice. You can also work with test prep material. If the option is available to you, math tutoring lets you work with someone who understands the topic and can help teach it to you. Angles Angles in parallel lines 2D shapes Quadrilateral Triangle At Third Space Learning, we specialize in helping teachers and school leaders to provide personalized math support for more of their students through high-quality, online one-on-one math tutoring delivered by subject experts. Each week, our tutors support thousands of students who are at risk of not meeting their grade-level expectations, and help accelerate their progress and boost their confidence. Find out how we can help your students achieve success with our math tutoring programs. We use essential and non-essential cookies to improve the experience on our website. Please read our Cookies Policy for information on how we use cookies and how to manage or change your cookie settings.AcceptPrivacy & Cookies Policy A part of a line with a start point but no end point (it goes to infinity) Try moving points "A" and "B": If you're just beginning to explore geometry, you've probably come across the term "ray." While it might sound mysterious, understanding what a ray is can be both simple and fun. Think of it as a tiny building block of geometry, playing a critical role in shapes, angles, and more. But what exactly is a ray in geometry? Let's break it down together, step by step, so you can feel confident tackling this geometric concept! A ray is like an endless math superhero—it has one starting point and zooms off infinitely in one direction. Imagine taking a line, picking one point on it, and declaring, "This is where it starts!" From that point, the ray extends forever in one direction, always straight and never stopping. Think of it this way: A line stretches infinitely in both directions. A line segment has two endpoints (it doesn't extend forever). A ray, however, has one endpoint and continues infinitely in one direction. Symbol Representation In geometry, a ray is often named by two points. The first point is the starting point (the endpoint), and the second point is any other point along the ray's path. For example, if a ray starts at point A and passes through point B, it's represented as AB with a small arrow above the letters pointing to the right, like this: The arrow always points away from the starting point to indicate the direction of the ray. Real-Life Metaphors for a Ray To make the concept more relatable, here are a few everyday examples of rays Flashlight Beam — Turn on a flashlight, and you'll see light starting at the flashlight head and shining straight out into the distance, just like a ray. Sun Rays — Each ray of sunlight begins at the sun and travels endlessly through space. Laser Pointer — A laser beam starts from the device and moves in a single straight path. Pointing Your Finger — Your fingertip is the starting point, and the direction you point indicates an imaginary ray extending outward. These examples give you a better sense of how rays exist around us, not just in math books! Why is learning about rays important? Rays are everywhere in geometry, laying the groundwork for many concepts like: Angles: Two rays that share an endpoint form an angle (e.g., a 90° corner). Shapes and Polygons: Rays help construct edges and corners of shapes. Optics: Rays come into play in physics and engineering, where they help describe light and reflection. Mastering this basic concept will make understanding advanced topics in math and science much easier! You might be wondering how to solidify your understanding of rays beyond examples and definitions. Don't worry—there are plenty of resources to help make learning interactive and exciting. Here are a few: Practicing with tools like these can help build a stronger understanding of concepts like rays in geometry. When facing a task that requires identifying or working with rays, follow these simple steps: Look for the Starting Point – Identify the endpoint. Every ray has a single starting point. Trace the Direction – See which way the ray extends. It should go straight and infinitely in one direction. Use Naming Conventions – Remember that a ray is named by its endpoint (where it begins) and another point along its path. Always name the endpoint first. For example, if you're given two points, A (the endpoint) and B (a point along the ray), the ray is written as A B → . Understanding "what is a ray in geometry" isn't as daunting as it may seem. By visualizing rays using everyday examples and practicing with interactive tools, you'll soon see how simple and intuitive this concept is. Rays are the foundation for many exciting geometric ideas, and each concept builds upon the other as you advance in your learning. Feeling ready to take it to the next level? Check out online resources, practice your skills, and if you need a little extra support, don't hesitate to explore K12 Tutoring's Geometry Tutors—the perfect partner for taking on the wonderful world of geometry. We come across various angles in our everyday life, such as the hands of a clock, a slice of pizza, and an arrowhead showing direction, to name a few. To structure an angle, we need to know what a ray is in math. Rays help us form different angles depending on how we arrange them. Today, we shall find out what a ray is in math. Come, let's begin! The definition of ray in math is that it is a part of a line that has a fixed starting point but no endpoint. It can extend infinitely in one direction. Since a ray has no end point, we can't measure its length. Fun Facts: The sun rays are an example of a ray. The sun is the starting point or the point of origin, and its rays of light extend indefinitely in our solar system. On its way to infinity, a ray may pass through more than one point. A ray is named using its initial point and any other point through which it passes. So, the first letter of a ray's name indicates its starting point. When naming a ray, it is denoted by drawing a small ray on top of the name of the ray. The figure below represents a ray PQ. Here, the starting point of ray PQ is P, and on its way to infinity, it passes through point Q. Now consider the diagram below. It has a ray that passes through two points on its endless journey. The starting point of this ray is D. You can name it ray DE or ray DF. Fun Fact: The point from where a ray starts its journey towards infinity is called its endpoint! More Worksheets In geometry, when two rays share a common endpoint, they form an angle. Here, in the below figure, each of the angles is made up of two rays. The vertex of the angles is the starting point of the rays. It is the vertex that gives us the measure of an angle. The rays from the arms of the angles. Angles are measured in degrees (°). In the below figure, the angle ABC is formed by the rays BA and BC. A ray is a geometric figure that has no height or width. It only has an indefinite length. The name of a ray must always include its origin point. We need two rays to form an angle. Having a clear idea about a ray in math is important. It helps us understand the concept of angles and multiple angles enable us to form a polygon. Example 1: What is the endpoint of ray GF in the given figure below? Solution: In the given figure, the endpoint of ray GF is G. Since the origin point of a ray is called its endpoint, here G is the endpoint. Example 2: Which rays are opposite to each other in the figure below? Solution: Ray GH and ray GC are opposite rays in the given figure. These rays start from point G and proceed in the opposite direction to form a straight angle. Example 3: Write the names of any five rays as seen in the given figure. Solution: Ray OC, ray OA, ray OG, ray CA, and ray GS are five rays seen in the given figure. Here, ray OC, ray OA, and ray OG originate from the point O. Ray CA has C as the endpoint, and ray GS has G as the endpoint. Attend this Quiz & Test your knowledge.Correct answer is: A raySince a ray extends endlessly in one direction, it has no definite length. But all the other given figures have definite length.One line segment and one rayTwo rays extending in the same directionCorrect answer is: Two opposite raysWhen a line is divided into two parts, it will form two rays that extend in the opposite direction.Correct answer is: InfiniteWhen you are given a point, you can draw an endless number of rays from that point in every direction.Correct answer is: It is a ray.The number line representing whole numbers starts from a fixed point, 0. It then extends endlessly through 1 as there is no end to whole numbers. What is the difference between a ray and a line? A ray has a fixed starting point and extends endlessly in another direction. But a line has no fixed starting point and extends endlessly in both directions. Can we extend a ray infinitely? Yes, we can extend a ray infinitely in one direction. A ray starts from a fixed point and so, it can't be extended infinitely in both directions. What is the thickness of a ray? A ray has zero thickness. It is a one-dimensional figure that has an indefinite length. What is the symbol of a ray? The symbol of a ray is a small arrow (->) that is placed above the name of the ray. The radian equivalent of 1 degree is π/180 radians. To convert from degrees to radians, we use the conversion factor of π radians = 180 degrees. Therefore, we can set up a proportion: π radians is to 180 degrees as x radians is to 1 degree. Cross-multiplying, we get x = (1 degree) * (π radians/180 degrees) = π/180 radians. Thus, the radian equivalent of 1 degree is π/180 radians. Radians provide a more natural and consistent way to express angles in mathematical calculations and formulas due to their direct relationship with the circumference of a circle.π degrees is equal to 180 degrees. Radians provide a more natural and consistent way to express angles, as they are directly related to the properties of circles. One full rotation around a circle corresponds to 2π radians or 360 degrees. Therefore, π radians represents half of a circle or a straight angle, which is equivalent to 180 degrees. The value of π, which is approximately 3.14159, plays a crucial role in trigonometry, calculus, and other mathematical fields. It is an irrational number, meaning it cannot be expressed as a fraction of two integers.π radians represents half of a circle or a straight angle. It is equivalent to 180 degrees. Radians provide a more natural and consistent way to express angles, as they are directly related to the properties of circles. The value of π, which is approximately 3.14159, plays a crucial role in trigonometry, calculus, and other mathematical fields. It is an irrational number, meaning it cannot be expressed as a fraction of two integers. The constant π relates the circumference of a circle to its diameter and appears in many mathematical formulas and calculations involving angles, circles, and curves.A radian is a unit of angular measurement used in mathematics and physics. It is defined as the angle subtended at the center of a circle by an arc whose length is equal to the radius of the circle. One radian corresponds to the angle that, when subtended at the center of a circle, covers an arc equal in length to the radius of the circle. Radians provide a natural and consistent way to measure angles based on the properties of circles. They are commonly used in trigonometry, calculus, and physics, where they play a fundamental role in analyzing circular motion, periodic phenomena, and the relationships between angles and trigonometric functions.To determine the percentage that 1 represents in 30, we divide 1 by 30 and multiply the result by 100. Mathematically, (1/30) * 100 = 3.33%. Therefore, 1 is approximately 3.33% of 30. Percentages represent a proportion or ratio out of 100, allowing for easy comparison and understanding of relative values. In this case, 1 is a small fraction of 30, resulting in a relatively low percentage.30 as a decimal is 30.0 or simply 30. Decimal notation represents numbers with a fractional part expressed after the decimal point. In the case of 30, there is no fractional part, so it can be written as 30.0 to indicate its decimal form explicitly. Decimals are widely used in various mathematical calculations, including arithmetic, algebra, and statistics.The simplest form of 30% is 3/10. To simplify a percentage, we express it as a fraction in its simplest form. In the case of 30%, we divide the percentage value by 100 and simplify the resulting fraction. 30/100 simplifies to 3/10 by dividing both the numerator and denominator by their greatest common divisor, which is 10 in this case. The simplest form of 30% is 3/10. Simplifying fractions allows for clearer representation and comparison of values.π/180 radians can be converted to degrees by using the conversion factor of 180 degrees/π radians. Multiplying π/180 by the conversion factor, we have (π/180) * (180 degrees/π radians) = 1 degree. Therefore, π/180 radians is equal to 1 degree. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in advanced mathematics and physics, while degrees are a more familiar unit for everyday angular measurements.30% can be converted to a fraction by dividing it by 100. Thus, 30% is equivalent to 30/100. Simplifying the fraction, we have 3/10. Therefore, 30% is equal to 3/10 as a fraction. Percentages are a way of expressing a proportion or ratio out of 100. Converting percentages to fractions allows for precise mathematical representation and comparison of values.π/4 radians is equal to 45 degrees. To convert from radians to degrees, we use the conversion factor of 180 degrees/π radians. Multiplying π/4 by the conversion factor, we have (π/4) * (180 degrees/π radians) = 45 degrees. Therefore, π/4 radians is equal to 45 degrees. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in advanced mathematics and physics, while degrees are a more familiar unit for everyday angular measurements.30 degrees can be expressed in radians as π/6 radians. To convert from degrees to radians, we use the conversion factor of π radians = 180 degrees. Therefore, we can set up a proportion: π radians is to 180 degrees as x radians is to 30 degrees. Cross-multiplying, we get x = (30 degrees) * (π radians/180 degrees) = π/6 radians. Thus, 30 degrees is equal to π/6 radians. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in advanced mathematics and physics, while degrees are a more familiar unit for everyday angular measurements.225 degrees is equal to 5π/4 radians. To convert from degrees to radians, we use the conversion factor of π radians = 180 degrees. Therefore, we can set up a proportion: π radians is to 180 degrees as x radians is to 225 degrees. Cross-multiplying, we get x = (225 degrees) * (π radians/180 degrees) = 5π/4 radians. Thus, 225 degrees is equal to 5π/4 radians. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in advanced mathematics and physics, while degrees are a more familiar unit for everyday angular measurements.1 radian is written as "1 rad" or simply as "1". The term "radian" itself can be omitted when the context is clear and the use of "1" alone implies radians. Radians are a unit of angular measurement commonly used in advanced mathematics and physics. They provide a more natural and consistent way to express angles in mathematical calculations and formulas due to their direct relationship with the circumference of a circle. Just like degrees, radians are used to measure angles, but they have different properties and units of measurement. The simplicity of "1 rad" emphasizes the fundamental nature of radians and their mathematical significance.The radian measure of 120 degrees is 2π/3 radians. To convert from degrees to radians, we use the conversion factor of π radians = 180 degrees. Therefore, we can set up a proportion: π radians is to 180 degrees as x radians is to 120 degrees. Cross-multiplying, we get x = (120 degrees) * (π radians/180 degrees) = 2π/3 radians. Thus, the radian measure of 120 degrees is 2π/3 radians. Radians are a unit of angular measurement commonly used in advanced mathematics and physics. They provide a more natural and consistent way to express angles in mathematical calculations and formulas due to their direct relationship with the circumference of a circle.2π/3 radians corresponds to an angle of approximately 120 degrees. To convert from radians to degrees, we use the conversion factor of 180 degrees/π radians. Multiplying 2π/3 by the conversion factor, we have (2π/3) * (180 degrees/π radians) ≈ 120 degrees. Therefore, 2π/3 radians represents an angle of about 120 degrees. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in advanced mathematics and physics, while degrees are a more familiar unit for everyday angular measurements.30 degrees is equal to π/6 radians because of the conversion factor between degrees and radians. The conversion factor is based on the relationship that a full circle or 360 degrees is equal to 2π radians. To convert from degrees to radians, we divide the degree measure by 180 and multiply by π. In the case of 30 degrees, the conversion can be calculated as (30 degrees) * (π radians/180 degrees) = π/6 radians. Thus, 30 degrees is equivalent to π/6 radians. This conversion is fundamental in trigonometry and allows for expressing angles in radians, which are commonly used in advanced mathematics and physics.3π/2 radians can be converted to degrees by using the conversion factor of 180 degrees/π radians. Multiplying 3π/2 by the conversion factor, we have (3π/2) * (180 degrees/π radians) = 270 degrees. Therefore, 3π/2 radians is equal to 270 degrees. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in trigonometry and calculus, while degrees are a more familiar unit for everyday angular measurements.15π/4 radians can be converted to degrees by using the conversion factor of 180 degrees/π radians. Multiplying 15π/4 by the conversion factor, we have (15π/4) * (180 degrees/π radians) = 675 degrees. Therefore, 15π/4 radians is equal to 675 degrees. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in trigonometry and calculus, while degrees are a more familiar unit for everyday angular measurements.To find a radian measure, you need to divide the length of the arc subtended by the angle by the radius of the circle. In trigonometry, a radian is defined as the angle subtended at the center of a circle by an arc whose length is equal to the radius of the circle. The ratio of the length of the arc to the radius is always equal to 1 radian. In formulaic terms, radian measure = arc length / radius. For example, if the length of the arc is equal to the radius, the angle is 1 radian. This concept is fundamental in trigonometry and calculus, as radians provide a natural and consistent way to measure angles based on the properties of circles.There are approximately 60 degrees in π/3 radians. To convert from radians to degrees, we use the conversion factor of 180 degrees/π radians. Therefore, we can calculate the number of degrees in π/3 radians as (π/3) * (180 degrees/π radians) ≈ 60 degrees. Radians and degrees are different units for measuring angles. Radians are commonly used in advanced mathematics and physics, while degrees are more familiar for everyday measurements. The conversion between radians and degrees allows for expressing angles in different units, depending on the context and requirements of a particular problem or calculation.3π/4 radians can be converted to degrees by using the conversion factor of 180 degrees/π radians. Multiplying 3π/4 by the conversion factor, we have (3π/4) * (180 degrees/π radians) = (3 * 180 degrees) / 4 = 135 degrees. Therefore, 3π/4 radians is equal to 135 degrees. The conversion between radians and degrees allows for expressing angles in different units depending on the context and the specific requirements of a problem or calculation. Radians are commonly used in trigonometry and calculus, while degrees are a more familiar unit for everyday angular measurements.The radian measure of 30 degrees is π/6 radians. To convert from degrees to radians, we use the conversion factor of π radians = 180 degrees. Therefore, we can set up a proportion: π radians is to 180 degrees as x radians is to 30 degrees. Cross-multiplying, we get x = (30 degrees) * (π radians/180 degrees) = π/6 radians. Thus, the radian measure of 30 degrees is π/6 radians. Radians are a unit of angular measurement commonly used in mathematics and physics. They provide a more natural and consistent way to express angles in mathematical calculations and formulas due to their direct relationship with the circumference of a circle.No, π/3 radians is not equal to 30 degrees. The conversion factor between degrees and radians is π radians = 180 degrees. Therefore, to convert from radians to degrees, we divide the radian measure by π and multiply by 180. Applying this conversion to π/3 radians, we have (π/3) * (180 degrees/π radians) = 60 degrees. Hence, π/3 radians is equal to 60 degrees, not 30 degrees. Radians and degrees are different units for measuring angles, and the conversion between them involves specific formulas based on the relationship between the radian measure and the degree measure of an angle.To convert an angle to radians in terms of π, you divide the angle measure in degrees by 180 degrees and multiply it by π. The formula for the conversion is: radians = (degrees * π) / 180. For example, to convert 45 degrees to radians in terms of π, you would calculate (45 * π) / 180 = π/4 radians. This formula allows for a convenient way to express angles in radians using the mathematical constant π. Radians provide a natural and consistent unit for measuring angles, especially in trigonometry, calculus, and other mathematical applications.sin 30 degrees, or sin (π/6 radians), is equal to 1/2. The sine function is a trigonometric function that relates the ratio of the length of the side opposite an angle to the length of the hypotenuse in a right triangle. In a right triangle with an angle of 30 degrees (π/6 radians), the ratio of the side opposite the angle to the hypotenuse is 1/2. Therefore, sin 30 degrees or sin (π/6 radians) is equal to 1/2. Trigonometric functions are extensively used in mathematics, physics, and engineering to solve problems involving angles, triangles, and periodic phenomena. We come across various angles in our everyday life, such as the hands of a clock, a slice of pizza, and an arrowhead showing direction, to name a few. To structure an angle, we need to know what a ray is in math. Rays help us form different angles depending on how we arrange them. Today, we shall find out what a ray is in math. Come, let's begin! The definition of ray in math is that it is a part of a line that has a fixed starting point but no endpoint. It can extend infinitely in one direction. Since a ray has no end point, we can't measure its length. Fun Facts: The sun rays are an example of a ray. The sun is the starting point or the point of origin, and its rays of light extend indefinitely in our solar system. On its way to infinity, a ray may pass through more than one point. A ray is named using its initial point and any other point through which it passes. So, the first letter of a ray's name indicates its starting point. When naming a ray, it is denoted by drawing a small ray on top of the name of the ray. The figure below represents a ray PQ. Here, the starting point of ray PQ is P, and on its way to infinity, it passes through point Q. Now consider the diagram below. It has a ray that passes through two points on its endless journey. The starting point of this ray is D. You can name it ray DE or ray DF. Fun Fact: The point from where a ray starts its journey towards infinity is called its endpoint! More Worksheets In geometry, when two rays share a common endpoint, they form an angle. Here, in the below figure, each of the angles is made up of two rays. The vertex of the angles is the starting point of the rays. It is the vertex that gives us the measure of an angle. The rays from the arms of the angles. Angles are measured in degrees (°). In the below figure, the angle ABC is formed by the rays BA and BC. A ray is a geometric figure that has no height or width. It only has an indefinite length. The name of a ray must always include its origin point. We need two rays to form an angle. Having a clear idea about a ray in math is important. It helps us understand the concept of angles and multiple angles enable us to form a polygon. Example 1: What is the endpoint of ray GF in the given figure below? Solution: In the given figure, the endpoint of ray GF is G. Since the origin point of a ray is called its endpoint, here G is the endpoint. Example 2: Which rays are opposite to each other in the figure below? Solution: Ray GH and ray GC are opposite rays in the given figure. These rays start from point G and proceed in the opposite direction to form a straight angle. Example 3: Write the names of any five rays as seen in the given figure. Solution: Ray OC, ray OA, ray OG, ray CA, and ray GS are five rays seen in the given figure. Here, ray OC, ray OA, and ray OG originate from the point O. Ray CA has C as the endpoint, and ray GS has G as the endpoint. Attend this Quiz & Test your knowledge.Correct answer is: A raySince a ray extends endlessly in one direction, it has no definite length. But all the other given figures have definite length.One line segment and one rayTwo rays extending in the same directionCorrect answer is: Two opposite raysWhen a line is divided into two parts, it will form two rays that extend in the opposite direction.Correct answer is: InfiniteWhen you are given a point, you can draw an endless number of rays from that point in every direction.Correct answer is: It is a ray.The number line representing whole numbers starts from a fixed point, 0. It then extends endlessly through 1 as there is no end to whole numbers. What is the difference between a ray and a line? A ray has a fixed starting point and extends endlessly in another direction. But a line has no fixed starting point and extends endlessly in both directions. Can we extend a ray infinitely? Yes, we can extend a ray infinitely in one direction. A ray starts from a fixed point and so, it can't be extended infinitely in both directions. What is the thickness of a ray? A ray has zero thickness. It is a one-dimensional figure that has an indefinite length. What is the symbol of a ray? The symbol of a ray is a small arrow (->) that is placed above the name of the ray.