

How to Measure and Buy the Correct Bike

The insane number of bikes, sizes, and types available these days makes shopping for a two-wheeler feel like a homework assignment. The good news, however, is that what matter more than a scientific fit is your own comfort. With a basic...

Method 1 of 3:

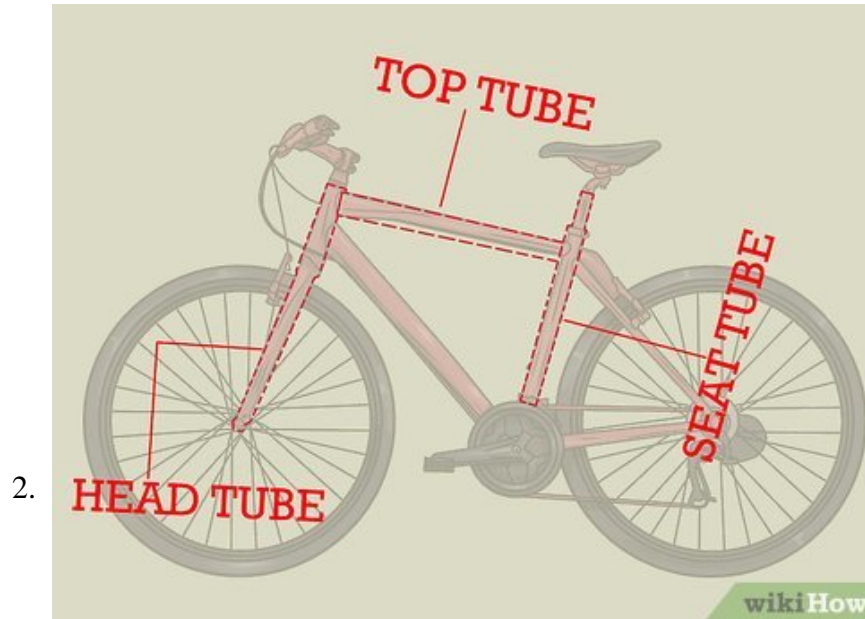
Buying a Road Bike



Buy a road bike if you plan to ride primarily on pavement. There are a lot of different types of road bikes available for different styles and functions. They are all, however, made for generally even, hard terrain like city roads or smooth trails. They are the most common bikes out there, and can be broken up into a few subcategories:

1. **Racing/Road bikes:** Aerodynamic, fast, and light, these bikes are the most common road warriors. They have thin tires and lighter frames, and usually aren't made to carry extra weight. Components are built for speed on a variety of geography, from big hills to long flats.
2. **Cross bikes:** These have wider tires and a sturdier frame, and are built for a variety of terrains, from city roads to bike paths and light trails. They are usually built to handle some weight, so they work well for commutes to work or the store and on short-range trips.
3. **Touring bikes:** Made for long, self-contained trips, these bikes are sturdy, no-frills bikes that can take a beating and hold a lot of weight. Because of this, they also function well as commuter or city bikes.

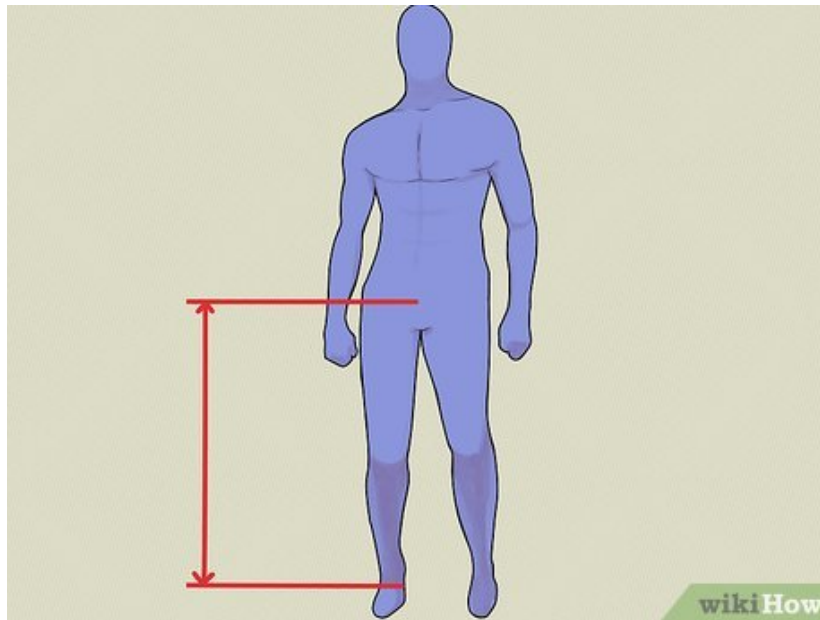
4. **Triathlon/Time-Trial Bikes:** Build for speed, these expensive beasts are light as a feather and have special handlebars that let you lean down for minimum wind resistance.



Know how to measure a bike's frame size. The main factor in buying the right bike is the frame size. The frame is the metal body of the bike, and it is measured in three key places. While most bike frames utilize only one measurement for sizing, knowing how to locate all three is key to getting the right size bike.

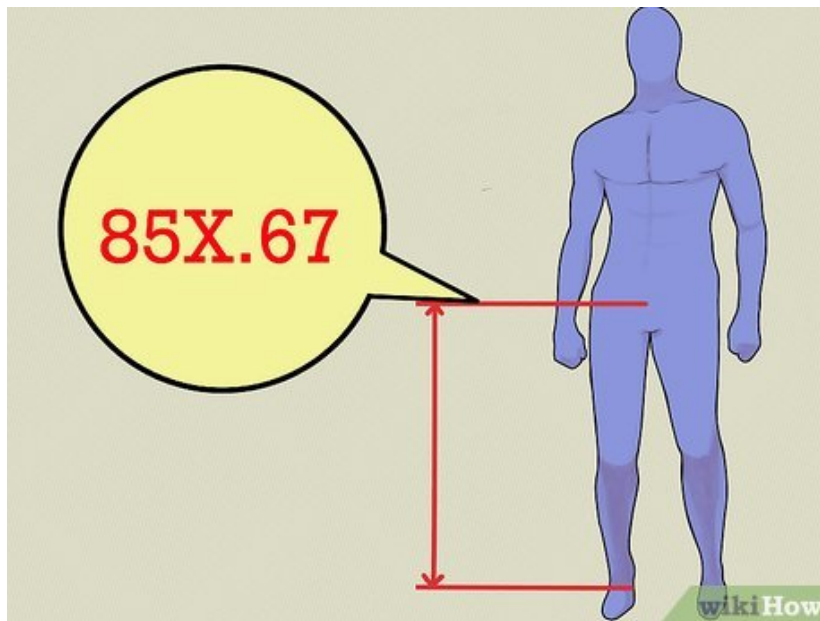
1. **Seat Tube:** This is the vertical bar between your seat and the pedals. It is measured to the center of the crankshaft, which is the circular disk that your pedals attach to.
2. **Top Tube:** This is the horizontal bar between your seat and the handlebars. It affects your "reach" towards the handlebars.
3. **Head Tube:** This is the small vertical area on the front of your bike, measured between from where it begins to fork around your front wheel and the handlebar stem. It also affects your "reach" to the handlebars.

3.



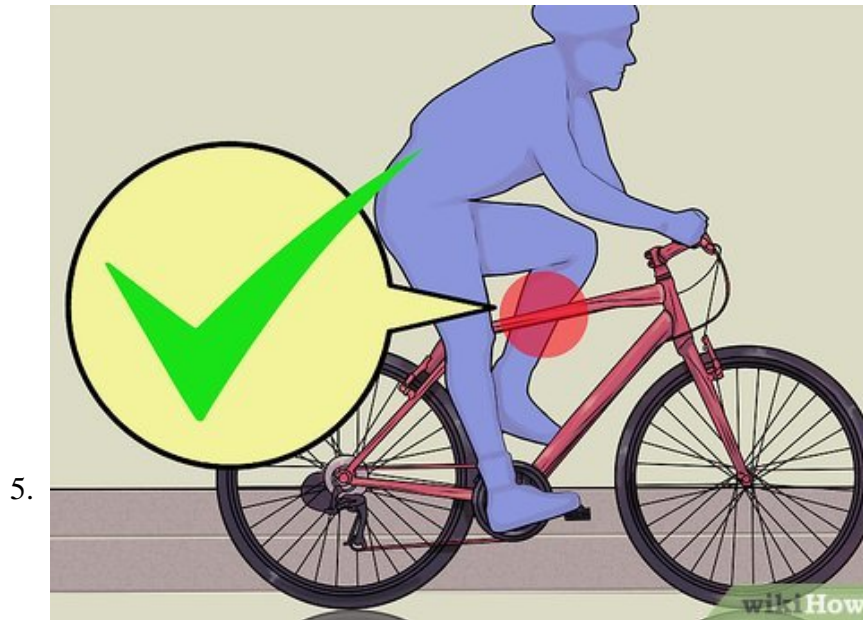
Measure your inseam. Stand with your feet six inches apart, and measure up to your pubic bone from the inside of your foot (where your leg meets your hip in your crotch). Take this measurement in centimeters, since all road bikes are measured that way.

4.

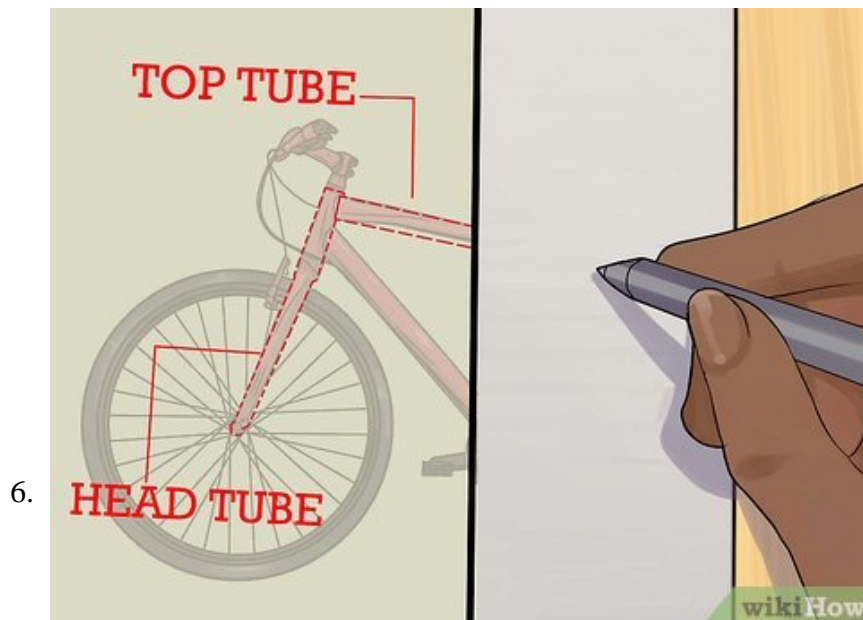


Multiply .67 by your inseam measurement to estimate seat tube length. Multiply .67 by your inseam to find you suggested seat tube. If your inseam is 85 centimeters, for example, your seat tube should be 56.95, or 57, centimeters long.

1. The seat tube is usually, though not always, measured from the top of the tube to the center point of the crankshaft.^[1]



Make sure you can stand comfortably with the top tube between your legs. You're going to hit the inevitable red light, and you need to be able to stand up with your feet on the ground while you wait. Straddle the bike and make sure that you can stand with both feet firmly on the floor. If you can't, you'll need to go down a frame size.



Try out a variety of bikes to determine your "reach." There are a lot of different formulas out there to figure out the right reach, but the truth of the matter is that everyone is different, and you need to find out what is comfortable for you. When trying out bikes, note the length of the top tube and head tube, as well as the length of the stem -- the smaller piece connecting the handlebars to the frame -- and write down the measurements you like in case you want to buy your bike online. A comfortable reach should:

1. Let you rest your hands comfortably on the handlebars. Your fingers should be free to wiggle around.
2. Keep you elbows slightly bent, not locked or pressed up.

3. Allow you to reach all parts of the handlebars, especially gears and brakes, easily.



Know that comfort must always take precedence over measurement. The lengths of each tube may mean little compared to your final fit, since the angles the frame is joined at affects the distance between the seat, pedals, and handlebars just as much as the size. Studies have shown, for example, that a longer top tube can result in the same fit as a smaller one depending on the length of the head tube. These measurements are starting points as you go shopping, not perfect metrics for the right fit.

1. Always ask to test out 3-4 brands of bikes, and try out a size above and below the one you measured for. Your personal geometry is unique, so you need a bike that fits you.



Buy a road bike with handlebars even to the seat height if you are just beginning. It is easy, especially with curved "drop" handlebars, to get your hands lower on the bike. While serious riders often prefer lower handlebars, those who struggle with flexibility or are new to biking almost always prefer a bike with handlebars even to the seat height.

1. Flat handlebars are rare on road bikes, unless they are designed for cruising or casual riding. It is difficult to go long distances with flat bars.
2. Drop bars are the classic, double C-shaped handlebars with two front-facing brakes and a variety of places to put your hands for comfort.



Purchase a "rack" if you plan on traveling or commuting with your bike. Bike racks allow you to pack things above your back wheel, but not all bikes are compatible with racks. In general, road bikes are not made to handle the weight of a rack, though cross and touring bikes are. Bikes that have two holes at the top of the "v" leading from the seat to the back wheel and two more hole in the very back of the frame will allow you to mount a rack.

1. Panniers are bags designed specifically to clip onto a bike rack, and are essential if you are transporting a lot of goods or want to travel long distances.

Score
0 / 0

Method 1 Quiz

If you're planning on using your bike on bike paths to and from the grocery store, which type of bike should you purchase?

Racing bike.

Nope! Racing bikes are better designed for fast biking and bike races. They are built for speed and are very light. They are not the best bicycle for a shopping trip, as they are not designed to carry extra weight. Try another answer...

Time-trial bike.

Not quite! Time-trial bikes are built for speed and are very expensive. Time-trial bikes are better suited for racing than a trip to the grocery store. There's a better option out there!

Cross bike.

Yes! A cross bike is perfect for biking to the grocery store and back. They can handle the extra weight and their tires are wider and their frames are sturdier than other bikes. Alternatively, you could purchase a touring bike, which is another sturdy bike to take to the grocery store. Read on for another quiz question.

Touring bike.

Not exactly! A touring bike is designed for longer trips. While they can handle lots of extra weight, touring bikes are better for biking a long distance into the city or to work. Try another answer...

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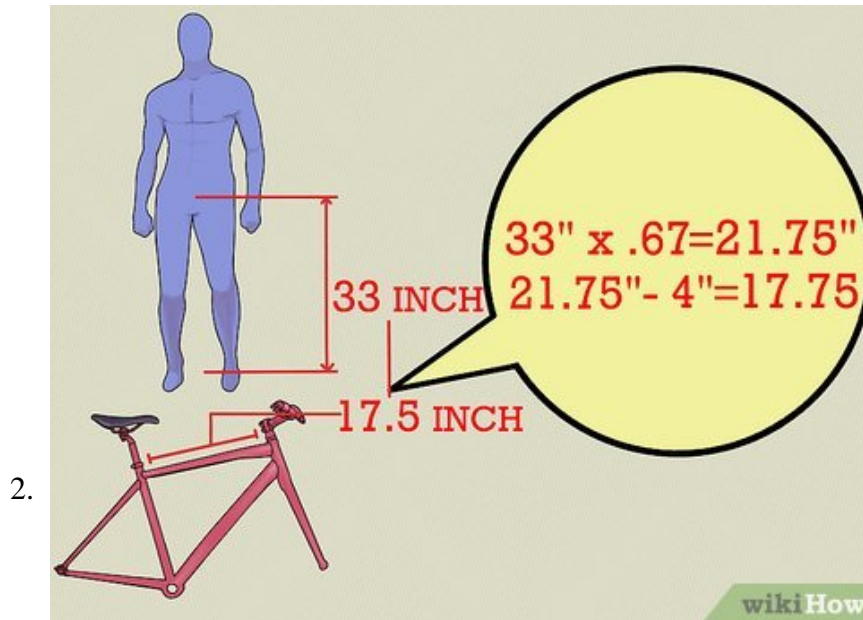
Method 2 of 3:

Buying a Mountain Bike



Buy a mountain bike to ride hard over a variety of terrain, not ride quickly. Mountain bikes are made to take a beating and survive. Even city or small town dwellers like them, as they can turn off on dirt paths, crush over curbs, and get a little muddy without worrying about the bike breaking down. That said, a mountain bike's true purpose is to safely bomb up and down trails covered in roots, rocks, and sticks, and they will handle it accordingly.

1. Trail Bikes are great, all-purpose mountain bikes that can handle light and difficult trails as well as pavement and dirt roads quickly.
2. All Mountain Bikes are made for hard, technical trails and serious riders.
3. If you plan on hitting the trails, spending a little extra money will almost always be worth it for safety and comfort.



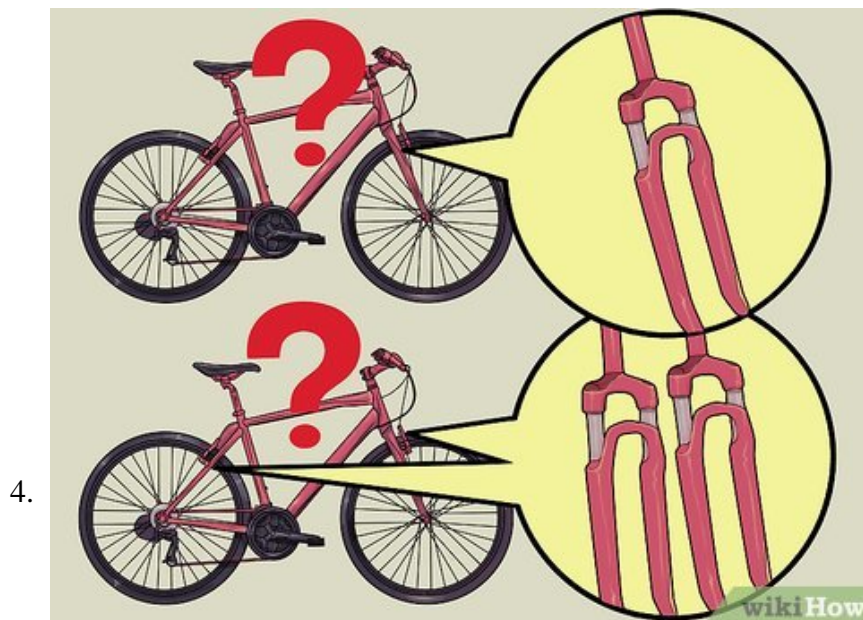
Take your inseam measurement to determine frame size. Stand with your feet 6 inches apart and measure from the inside of your foot up to where your leg meets your waist, between your crotch and inner thigh, in inches. Multiply this number by .67, then subtract 4" to 5" from the answer to get the estimated length of your top tube, which is the part of the frame running from the handlebars to below your seat.^[2] Use the top-tube for your measurement when possible, as seat tube (pedal to seat) measurements are tricky to determine and change from manufacturer to manufacturer.^[3]

1. If you have a 33 inch inseam, you need a 17.5" top tube, since:
 $33" \times .67 = 21.75"$
 $21.75" - 4" = \mathbf{17.75}$
2. Specialty bike makers Lapierre & Neil Pryde have different geometry. Multiply your inseam by .62 instead of .67 if you really want one of these bikes.^[4]
3. If your bike shop gives frame size by seat tube length, multiply your inseam by .185. The number should be the distance between the top of your seat tube and the middle of the crankshaft, the circular piece attaching the pedal to the bike.^[5]



Let comfort take precedence over the calculated measurement. Because the angles your different tubes are joined at affects the distance between the seat, pedals, and handlebars, these measurements will change from bike to bike and rider to rider. Taking measurements is a good starting points, but you need to get the bike you feel most comfortable on. Try out different brands and a size above and below your measured size. You cannot tell if a bike is the right fit if it is the only one you try.

1. Your hands should rest comfortably on the handlebars so that your fingers feel free.
2. You want your elbows slightly bent, not locked or pressed up on the handlebars
3. Most mountain bikers prefer their handlebars 1-2" lower than their seat height, as it lowers your center of gravity.
4. You should be able to reach the shifter and brakes without losing your balance on a properly sized bike.



Decide if you want double or single suspension. All mountain bikes have shock absorbers on the front wheels, allowing you to get over obstacle easily and maneuver in tricky terrain. However, serious bikers need to consider double suspension:

1. **Hardtail:** Another name for single suspension, these bikes only have shocks on the front wheel. They are lighter and cheaper options, and transition better to pavement riding.
2. **Full-Suspension:** Made for technical, tricky trails, these bikes are heavier but far more maneuverable and useful for serious mountain bikers.^[6]



Get a frame built for bigger wheels for increased comfort and ease on hard trials. Bigger wheels are becoming more and more fashionable, but you cannot swap out smaller wheels if your frame is made for bigger ones. In general, you have three options for wheel size.

1. **29 inch:** These behemoth wheels are great at rolling over rocks and roots, have provide more grip to the trail. They carry momentum well downhill, letting your go faster, but they are harder to accelerate.
2. **27.5 inch:** A hybrid wheel, they have some of the speed of a classic 26" with the increased movement over rocks and roots found in a 29".
3. **26 inch:** The traditional wheel size, these are light and speedy wheels that still function well on the trail. Until 5-10 years ago, they were the standard mountain bike wheel.^[7]

Score
0 / 0

Method 2 Quiz

If you plan to switch your bike from tricky terrain to pavement regularly, which type of suspension should you get?

Full-suspension

Nope! Full-suspension bikes are designed more for serious mountain bikers. They have shocks on the front wheel and the back wheel and are better at moving over obstacles. Pick another answer!

Hardtail

Yes! Hardtail bikes only have shocks on the front wheel. This allows the bike to move over obstacles on the path and keeps the bike from being too heavy when you move to the pavement. Read on for another quiz question.

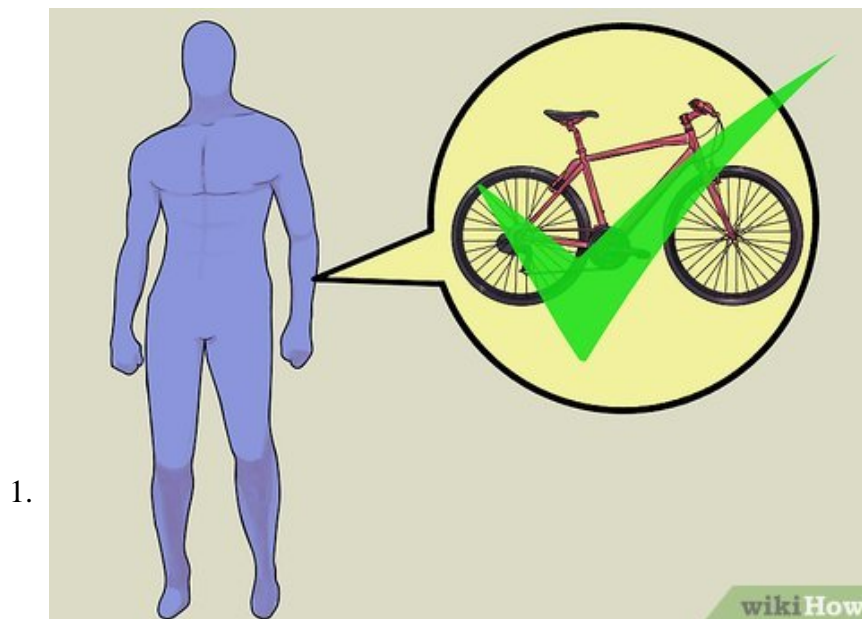
Double

Not quite! Double suspension bikes have shocks on the front and back wheels. They are heavier and harder to maneuver on the pavement. Try again...

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Method 3 of 3:

Choosing the Right Bike



Buy a bike that fits your skill level but allows room for growth. Bikes are expensive, and you don't want to buy a new one simply because you felt like saving money on the first one. If you're serious about biking, whether it is mountain, road, touring, or commuting, spending a little extra on a good bike now will save you money in the long-term. Ask yourself-- what is your fitness level now, and what do you want it to be? You should get a bike somewhere in the middle.^[8]

1. Beginner or intermediate mountain bikers might start with gentle trails that don't require good suspension, but if you love the sport you will quickly want to move up to harder trails that require a better bike.
2. Road riders might be fine to start with a heavier, cheaper bike, but you'll suffer on group rides or races as you get more experienced.
3. The frame is the most expensive part of the bike, and should be your first concern. Brakes, gears, wheels, and handlebars can all be swapped out or upgraded later. That said, good components resist wear and tear and lead to smoother riding.



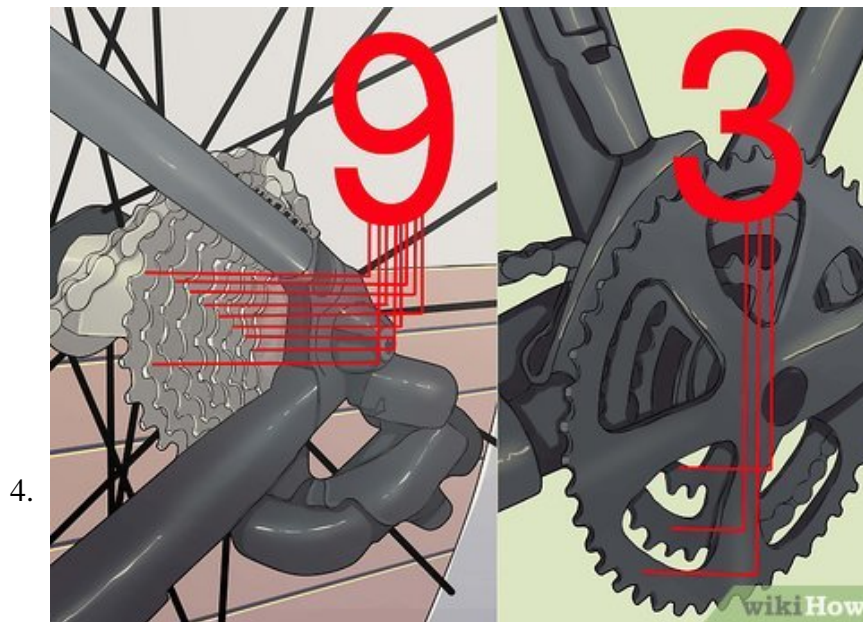
Get a comfort, cruiser, or hybrid bike if you only want to ride occasionally around town. These bikes come in a variety of shapes and purposes, but they share one thing in common -- they aren't made for long distances. If mountain or road bikes seem too specific for you, you should try out the following bikes instead. They usually come in standardized measurements (S, M, L, XL), so pick one that lets you comfortably reach the handlebars. Your knee should be slightly bent at the bottom of your pedal stroke.^[9]

1. **Fixed Gear:** Simple, light bikes made almost entirely for urban cruising, they offer you no extra gears. They are easy to maintain and ride, though they perform best on flat terrain.
2. **Cruiser:** Also known as "beach bikes" or "comfort bikes," these bikes are made for comfort, with high handlebars that let you ride almost completely upright.
3. **Hybrids:** Great commuting or urban bikes, hybrids have bigger tires than road bikes but similar geometry, keeping them light and speedy while allowing you get over bumps and cracks with ease.



Test bikes in person before buying online whenever possible. Shopping for bikes online is a great way to get the perfect bike for you and potentially save money, but you should never buy a bike online without testing it out beforehand. Once you've narrowed down your search to 3-4 types of bike, call your local bike shops and see if they have them in stock. Head down and try them out to make sure they fit you well and ride comfortably before buying.

1. Online reviews are a great place to get a feel for a bike. Check out online bike blogs and magazines and see what they think of the bikes, and read customer testimonials to see if there are any persistent issues with the bike that you want to avoid.



Understand gears and gear ratios. Gearing may seem confusing, but you should remember that it comes down to two factors. First, more gears means more options when riding, allowing you to find the perfect resistance going up or down hills. Gears, however, add to the weight of the bike, which is not desirable if you are a racer or mountain rider heading uphill a lot.

1. The classic gearing for both road and mountain bikes is 3 gears in the front and 9 in the back, resulting in a 27 speed bike.^[10]
2. Compact cranks are smaller, lighter gears in the front, giving you only two big chainrings to get into but cutting down on weight.

5.



Understand the different types of brakes. There are two large subdivisions of brakes -- rim brakes and disc brakes. Almost all mountain bikes, aside from entry level, use disc, while road bikes have much more variety.

1. **Rim Brakes** come in many forms, but they all function by clamping onto the rim of your wheel and holding it in place to slow you down. There are two big pads on either side of both wheel the squeeze when you let go. They are cheaper and easier to fix and maintain than discs.
2. **Disc breaks** rely on a separate steel disc attached to your wheel that the brakes grab in order to slow down the entire wheel. They are often more sensitive than rim brakes, and the tight space between the breaks prevents sticks,leaves, etc. from catching on the brakes and ruining them mid-ride. They are, however, harder to manage and calibrate without prior knowledge.

Score
0 / 0

Method 3 Quiz

Which bike should you choose if you only care about riding comfortably?

Fixed gear.

Not quite! Fixed gear bikes are light and easy to ride, but aren't always the most comfortable choice. If you're only riding your bike occasionally and only on flat terrain, a fixed gear bike might be for you. Try again...

Hybrids

Nope! Hybrid bikes are light and easier to ride like road bikes, except with bigger wheels. They are not always the most comfortable option, though they will move over bumps in the road easily. Click on another answer to find the right one...

Cruiser

That's right! A cruiser bike, also known as "comfort bike," is true to its name in that it's designed with comfort in mind. The handlebars are higher, which lets you sit almost upright. Read on for another quiz question.

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